

*Ag. 1765*  
**NEW SYSTEM**  
*Will* OF *Morris. 1765.*  
**AGRICULTURE;**

*George* OR, *Vasey 1855*  
**A Plain, Easy, and Demonstrative  
METHOD of speedily growing Rich:**

Proving, by undeniable Arguments,

That every LAND-OWNER, in *England*, may  
advance his Estate to a *double* Value, in  
the Space of *one* Year's Time.

TOGETHER WITH

Several very curious INSTRUCTIONS, how to  
feed OXEN, COWS, and SHEEP, to much  
greater Profit, than has ever yet been known  
in *England*.

By a COUNTRY GENTLEMAN.

*The only Gentleman-like way of growing Rich is by the Art of  
Husbandry. All other Professions have something in them of the  
Mean and Subservient. This alone is Free and Noble; and  
the Wealth thus gotten may almost be said to be of a Man's own  
Creating.*

*Male agitur cum Domino, quem villicus Docet.*

*Googe of Husbandry.*

*Cato de Agricultura.*

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DUBLIN:

Printed for GEORGE FAULKNER, and PETER WILSON,  
MDCCLV.

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AGRICULTURE

A. T. Smith, Jr. and J. W. Smith, Jr.

THE SPACE OF THE LAND-OWNERS

Several very common plants are found in  
the Okefenokee, and some of them  
which have not been known  
in Florida.

By a County Court.

[illegible]

James M. Smith, President

10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000-1001-1002-1003-1004-1005-1006-1007-1008-1009-1010-1011-1012-1013-1014-1015-1016-1017-1018-1019-1020-1021-1022-1023-1024-1025-1026-1027-1028-1029-1030-1031-1032-1033-1034-1035-1036-1037-1038-1039-1040-1041-1042-1043-1044

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A N E W  
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O F  
A G R I C U L T U R E .

**O**NE would imagine, that, in an Age so fond of *Gain*, it would be but an impertinent and needless Attempt to court Men to make the *best* of their particular Advantages; yet nothing is a Truth more undeniable, and conspicuous, than that *They*, who are, in *Possesse* the *richest* in the Kingdom, are, in *Esse*, the most *poor* and miserable.

I appeal to every Part of every County, for a Proof of my Assertion, why else are our *Land-owners* obliged to stoop to the Oppression of the *Money-mongers*? -- Why else do the devouring Mortgages consume so many splendid Fortunes? And why do such considerable Numbers of young Heirs live idly and contemptibly, for a tedious train of Years, in order to reduce a little Debt, which has been charged upon their Patrimony.

That it is the Gentlemen's own faults, who suffer these, or any of these Inconveniencies, shall be proved by as plain a Demonstration, as any in *Euclid*; and that the Mortgages, so fatal to the Landed Interest, may easily be cleared by the very



Land so mortgaged. And why this is not made a common Practice, is a Riddle, which requires another *Oedipus*.

I am very sensible, how difficult a Task I have undertaken, to disarm People of that inconsiderate Prejudice, with which they war against all offers of this Nature. 'Tis a surprizing Reflection, that Men should bid Defiance to Reason, and bar a Door against the Entrance of their own Advantage; yet, there is no ridiculous Thing more general.

'Tis a very great Misfortune to *England*, that the Cultivation of her Lands is in the meanest of her People; Men, whose Obscurity of Birth, and Narrowness of Education, do not only render them unable to *make* Improvements, but unwilling to *bear* of them.——They daily see the greatest, and most noble *Effects* of Nature, without a Thought upon their *Causes*; and are so much less active, than the Clods, they deal with, that no *Manure*, no *Culture* can impregnate their Imaginations.

If you tell one of these, that such a Piece of Ground, so and so managed, would produce a very great Improvement---He will content himself to answer, with an unaccountable Stupidity, that, *a great many good Husbands had possessed that Ground before him, and yet it had continued, time out of mind, in its present Condition; that, had it been possible to make such great Advantages, it had certainly been found out in their Time; and that, as for his Part, He don't care to concern himself with Projects.*---Drive him from this Refuge, and he tells You, *that the Charge of the Improvement may be greater than the Profit.* And if, to obviate this Objection, too, you name some Neighbour, who, for a trifling Charge, has made a far worse Piece of Ground of equal Value with the best in the County---*Why, that may be truly, ---but, then, that*

*that was Land of a different Nature, and an honest Man might have worse Luck.*

These, or some such miserable Shifts, are the Blinds, they build between themselves and their Prosperity ; so that, let his Neighbour grow rich, on one Side of the Hedge, while He starves on the other ; let another plow with *two* Horses, while he toils with *four* ; 'tis all one to Him, and the more his wiser Friends endeavour to reform him, the more he arms his Ignorance with an impenetrable Obstinacy.

And yet, would this were All :---'Tis no new thing to find the *Low* Part of Mankind averse to Knowledge ; the Frame of their Minds is not moulded to a Relish of Delights above them.--- But that our *Gentlemen*, many of them Persons of Genius, Wit, and Judgment, that *They* should give in to such a vulgar Error, and neglect nothing so much, as those very Lands, by which they are distinguished among Men ; and from whose single Value they receive both their *Honour*, and their *Bread*, is a Misfortune, which, as no *wise* Man can easily account for, so no *good* Man can wish the Continuance of.

Before I finish this Discourse, I shall endeavour to lay open the Causes of this publick Calamity, at large : But will, here, only observe, in general, that there are two Things to be regarded, as *Requisites*, in whatever Profession we apply ourselves to ; First, Is it *reputable* ? Secondly, Is it *profitable* ? And surely, if we were but once convinced, that *Husbandry* were not only the most *gainful* Employment, but the most *noble*, *just*, and *honourable* ;--- an Employment, which the wisest Writers of Antiquity, *Priests*, *Poets*, *Princes*, and *Philosophers*, have celebrated, and preferred before All other ; and the greatest *Emperors*, and mightiest *Heroes* of the Universe, not only delighted in,

but practised with their own Hands ;---Were we once, I say, convinced of this ;---The Scorn would leave this glorious Art, and fix upon the Follies of those mistaken Judges, who believe it an Employment, *too low* for the Practice of a Gentleman.

Behold, says our ingenious Cowley, in his excellent Discourse on this Subject,---*Behold the Original, and primitive Nobility of all those great Persons, who are too proud, now, not only to TILL the Ground, but almost to TREAD upon it ; we may talk what we please of LILLIES, and LYONS RAMPANT, and spread Eagles in Fields of OR, or ARGENT, but if Heraldry were guided by right Reason, a PLOW in a FIELD ARABLE would be the most noble, and antient Arms.*

How easy would it be to prove, from the concurrent Testimony of the Antients, the uncontested Superiority of this Art to any other : Nay, a Man might draw Proofs from the Scriptures themselves, that Husbandry is not only a recommended Profession, pleasing to God, and beneficial to Man, but the only worldly Business, we have to do, in this Life, and the very individual Errand, we were sent into Earth upon.---All other Things are subservient to this one great Pillar of the World ; *Arts and Sciences* are but the polishing of this Marble ; All Offices, *Divine, Civil, and Military*, are the several Dependencies of this Heavenly Art ;---Strength, Honour, Glory, Learning, and Dominion, are the Children of her Influence.

But I will not go so far back ; --- I need not : Modern Instances abound ; and we have Proofs enough from later Writers, nay, from *English* Writers, to convince the most *despairing* of its *Profits*, and the most *disdainful* of its *Reputation*. I will bring a Croud of Witnesses, whose Depositions you shall hear, and, then, I will proceed to inform you, what the Husbandry, *They* mean, is ;  
and



and how easy to be understood by any Undertaker ; tho' it differs, *all Heaven's Breadth*, from the present clumsy Practice, which usurps the Appellation.

And first, not to mention that learned Nobleman, *Lord Chancellor Bacon*, great Part of whose Natural History is composed of Axioms in Husbandry, for which he found Leisure from the highest Office in the Kingdom. Let us hear *Sir Richard Weston*, (almost as great a Man, as the other) in his *Legacy to his Sons*.

By Husbandry, *says he*, you may nobly augment your Estates, and will receive so much the more Profit, and Praise, by how much more Diligence, and Industry, you govern your Affairs with. You will not only be imitated, but honoured; by your Neighbours, when they see your Labours prosper, by converting barren Ground, which has, as such, been left unhusbanded for Ages, into excellent Arable, Pasture, and Meadow. He certainly is worthy great Praise, and Honour, who, possessing a large, and barren Demesne, constrains it, by his Industry, and Labour, to produce extraordinary Plenty, not only to his own Profit, but that of the Publick also. *Cato* says, that 'tis a burning Shame to a Man, not to leave his Inheritance greater, than he received it : And that He, who loses, by his Sloth, what his Lands might yield him, is a Sinner, and despises the Liberality of God. 'Tis a Thing much celebrated by Antiquity, and thought the noblest Way to gather Wealth, to employ our Wit, and Money, on our Land, and, by that means, augment our Estates.---If you observe the common Course of Things, you will find, that Husbandry is the End, which Men of all Conditions aim at :---Why do *Soldiers, Scholars, Lawyers, Merchants,*

and

‘ and Men of *all* Trades, and Professions, toil,  
 ‘ and labour, with great Eagerness, but to get  
 ‘ Money? And, when they have got that Money,  
 ‘ what is their next Aim, but to purchase Land?  
 ‘ Why do they buy Land, but to receive the Pro-  
 ‘ fit, it produces? And how shall that Profit  
 ‘ be produced, if not by Husbandry? So that, by  
 ‘ Degrees, let a Man steer what Course thro’ the  
 ‘ World he pleases, at last, He comes to Hus-  
 ‘ bandry; which, as it is the most general Em-  
 ‘ ployment of Mankind, so is it the most natural,  
 ‘ and holy, being commanded by the Mouth of  
 ‘ God Himself to the Practice of our Forefathers.  
 ‘ You will find the Improvements in Husbandry,  
 ‘ when you once experience them, to be very de-  
 ‘ lightful to you; and so exceeding profitable,  
 ‘ that it will make you diligent; for no Man, of  
 ‘ any Art, or Science whatsoever, unless it were a  
 ‘ *Goldmaker*, ever pretended to so much Gain, by  
 ‘ any other means, as you shall see demonstrated  
 ‘ in this Treatise. The *Usurer* doubles but his  
 ‘ Principal in seven Years, even by Interest upon  
 ‘ Interest; But, by my Legacy of Husbandry,  
 ‘ you shall learn to do more than *treble* your Prin-  
 ‘ cipal in one Year’s Compass, &c.’

Thus far *Sir Richard*, who published a Book  
 relating to the Practice of Agriculture; And, by  
 one, which followed it long after, by another  
 Hand, under the Title of *Annotations on the Le-  
 gacy of Husbandry*, we may perceive the great  
 Good, it did the Publick, by putting them upon  
 Improvements, which, till then, they never  
 dream’d of.

Page 220, of *these Annotations*, we have a Let-  
 ter from a very learned Gentleman, which begins  
 thus.

‘ I have read the Book of Husbandry thorow,  
 ‘ and am very much delighted with the many  
 ‘ profitable,

' profitable, and ingenious Discoveries it contains ;  
 ' insomuch that I could wish myself a Farmer in  
 ' the Country, to play the practical Philosopher  
 ' in so agreeable a Manner. I remember, when  
 ' I was a Student in *Cambridge*, I was wont to  
 ' maintain, that He was no natural Philosopher,  
 ' who could not advance his Tillage, Cattle, Fish-  
 ' ing, Fowling, and other Affairs, with more Dex-  
 ' terity, and to greater Profit, than another Man,  
 ' who pretends no Skill in Nature. I have read a  
 ' like Hint, somewhere in *Ramus*, who refers all  
 ' Arts to profitable Use in Man's Life ; abhorring  
 ' the vain Ostentation of the sophisticated Univer-  
 ' sities.'

In the same *Annotations*, Page 237, we have an  
 Account of the Profit, made by one Mr. R. H.  
 who sowed Clover, according to *Sir Richard's* Di-  
 rections—His Words are, as follow.

' The Ground, I sowed, was about two Acres ;  
 ' I sowed Barley, and after that 15lb of Clover-  
 ' seed on each Acre ; my whole Charge was much  
 ' more than paid by the Crop of Barley ; and the  
 ' 28th of *May* next, I mowed the Clover, and, for  
 ' that first Cutting, refused five Pounds : In *Aug-*  
 ' *ust*, I mowed for Seed, and the whole Year's  
 ' Profit of my two Acres was thirty Pounds, be-  
 ' sides the after-Pasture.

Then comes Another, with this Certificate — ' I  
 ' sowed four Acres, according to your Directions,  
 ' and had 20 Bushels of Seed, and 12 Loads of  
 ' Hay, at twice mowing ; the first Crop I mowed  
 ' was the 19th of *May* last ; and, I am sure, I  
 ' speak much within Compass, when I tell you,  
 ' that my four Acres yielded me, in this one Year,  
 ' fourscore Pounds.

Henry Crutenden.

A Gentleman of Kent, by Name, *Sir Thomas*  
*Payton*.—' did, upon six Acres of Clover, main-  
 ' tain, from the 15th of *April*, to the 15th of  
 ' *October*,



‘ *October*, 13 Cows, 10 Oxen, 3 Horses; and 26  
 ‘ Hogs, which came to the Profit of 20 Nobles an  
 ‘ Acre, for the half Year only.’

*Annotations, Page 245.*

‘ *Again---* Certain *Dutchmen* have sent to their  
 ‘ own Country for a Kind of Trees, called *Flan-*  
 ‘ *ders Ashes*, which they planted, here, in our Fens  
 ‘ of *Lincolnshire*: The Charge amounted to about  
 ‘ 3 Shillings a Tree; and they grew so fast with  
 ‘ us, that, at the End of three Years, they were  
 ‘ worth twenty Shillings a Piece for Timber.’

*Annotations, Page 270.*

*We shall have more of these Examples, anon:  
 Let us now see another Author, on this Head.*

*Cowley, Edit. 4. P. 98.*

‘ The first Wish of *Virgil* was to be a good  
 ‘ *Philosopher*: The second, a good *Husbandman*;  
 ‘ And God dealt with him, just as he did with  
 ‘ *Solomon*; Because he prayed for Wisdom in the  
 ‘ first Place, he added all things else, which were  
 ‘ to be desired; He made him one of the best *Phi-*  
 ‘ *losophers*; and the best *Husbandman*: And,  
 ‘ to adorn, and communicate both those Faculties,  
 ‘ the best *Poet*: He made Him, besides all this,  
 ‘ a rich Man; and a Man, who desired to be no  
 ‘ richer. To be a *Husbandman* is but a Retreat  
 ‘ from the World, as it is *Man’s*; into the World,  
 ‘ as it is *God’s*.---*Husbandry* is, as *Columella* calls  
 ‘ it—The nearest Neighbour, and, without Doubt,  
 ‘ the next in Kindred to *Philosophy*. It does cer-  
 ‘ tainly comprehend more Parts of *Philosophy*,  
 ‘ than any one Profession, Art, or Science, in the  
 ‘ World besides; And, therefore, *Cicero* says, the  
 ‘ Pleasures of this Life come very near to those of  
 ‘ a *Philosopher’s*. There is no other Sort of Life,  
 ‘ that affords so many Branches of Praise to a Pa-  
 ‘ negyrist: The *Usefulness*, or, rather, the *Neces-*  
 ‘ *sity* of it to all the Rest of Mankind; The *In-*  
 ‘ *nocence*;

' *nocence* ; The *Pleasures* ; The *Antiquity* ; The  
 ' *Dignity*. The *Lucre* of it is not, now, so great,  
 ' in our Nation, as arises from the Merchandise,  
 ' and Trade of the City ; we have no Men, now,  
 ' fetcht from the Plow to be made *Lords*, as they  
 ' were in *Rome*, to be made *Consuls*, and *Dictators* ;  
 ' the Reason of which is from an evil Custom  
 ' among us, that no Men put their Children to  
 ' be bred up *Apprentices* in Husbandry, as in other  
 ' Trades, but such, who are so poor, that, when  
 ' they come to be Men, they have not wherewithal  
 ' to set up in it ; and so can only farm some small  
 ' Parcel of Ground, whose Rent devours all but  
 ' the bare Subsistence of the Tenant, whilst they  
 ' who are Proprietors of the Land, are either too  
 ' proud, or, for want of Education, too ignorant  
 ' to improve it ; tho' the Means of doing it be as  
 ' easy, and certain in this, as in any other Track  
 ' of human Commerce. If there were always two,  
 ' or three thousand Youths for 7 or 8 Years bound  
 ' to this Profession, that they might learn the whole  
 ' Art of it ; and afterwards, be enabled, by a mo-  
 ' derate Stock to be Masters in it, I cannot doubt,  
 ' but that we should see as many *Alderman's* Estates  
 ' made in the Country, as now we do, out of all  
 ' Kinds of merchandizing, in the City---*There* are  
 ' as many Ways to be rich, and, which is better,  
 ' there is no *Possibility* to be poor, without such  
 ' Negligence, as can neither have Excuse, nor  
 ' Pity.

' As for the *Necessity* of this Art, it is evident  
 ' enough ; since *This* can live without all other,  
 ' and no one other without *This*. Many Nations  
 ' *have* lived, and some *do*, still, without any Art  
 ' but *This* ; and almost all others are beholding  
 ' to *This* for most of their Materials.

' The *Innocence* is the next Thing for which I  
 ' commend it ; and, if Husbandmen preserve not  
 ' *That*

' *That*, they are much to blame ; for no Men are  
 ' so free from the Temptations of Iniquity. *They*  
 ' live upon an Estate, which is given them by  
 ' their Mother ;--*Others* upon an Estate, which is  
 ' cheated from their Brethren : *They* live by what  
 ' they can get by Industry from the Earth ; *others*  
 ' by what they can catch by Craft from Men.---  
 ' *They* live, like Sheep and Kine, by the Allow-  
 ' ances of Nature ; *Others*, like Wolves and Foxes,  
 ' by the Acquisitions of Rapine. We are, *here*,  
 ' among the vast, and noble Scenes of Nature ;  
 ' we are, *there*, among the pitiful Shifts of Policy.  
 ' We walk, *here*, in the Light, and open Ways of  
 ' the divine Bounty : We are groping, *there*, in  
 ' the dark, and confounding Labyrinths of human  
 ' Malice : Our Senses are, *here*, feasted with the  
 ' clear, and genuine Taste of their Objects, which  
 ' are all sophisticated, *there*, and overwhelmed with  
 ' their Contraries.—*Here*, Pleasure looks, like a  
 ' constant, beautiful, and modest *Wife* : It is, *there*,  
 ' a fickle, impudent, and painted *Harlot*.—*Here*, is  
 ' harmless, and cheap Plenty ;—*There*, a guilty,  
 ' and expensive Luxury.

' The *Antiquity* of this Art is certainly not to  
 ' be contested by any other. The three first Men  
 ' in the World were a *Gardiner*, a *Plowman*, and  
 ' a *Grazier* : It is for this Reason, I suppose, that  
 ' *Ecclesiasticus* forbids us to hate Husbandry, *be-*  
 ' *cause*, says he, *The most High* has created it. We  
 ' are all born to this Art, and taught by Nature  
 ' to nourish our Bodies out of the same Earth, they  
 ' were made of ; and to which, at last, they must  
 ' return, and pay for their Subsistence.

' These Considerations make me fall into the  
 ' the Wonder, and Complaint of *Columella*, how  
 ' it should come to pass, that all Arts or Sciences,  
 ' *Metaphysick*, *Physick*, *Morality*, *Mathematicks*,  
 ' *Logick*, *Rhetorick*, nay even *Vaulting*, *Fencing*,  
 ' *Dancing*,



‘ *Dancing, Cooking, Dressing, Carving,* and such  
 ‘ like *Vanities*, should All have publick Schools,  
 ‘ and Masters ; and yet, that we should never see,  
 ‘ or hear of any Man, who took upon him to pro-  
 ‘ fess an Art so virtuous, so profitable, so honour-  
 ‘ able, and so necessary ! Who is there among our  
 ‘ Gentry, that does not entertain a *Dancing-master*  
 ‘ for his Children, as soon as they are able to walk.  
 ‘ But did ever any Father provide a Tutor, to in-  
 ‘ struct his Son, betimes, in the Nature, and Im-  
 ‘ provements of that Estate, which he intends to  
 ‘ leave him ? *That* is at least a Superfluity ; and  
 ‘ *This* a Defect in our Manner of Education ; And,  
 ‘ therefore, I could wish, that one College, in each  
 ‘ University, were erected and appropriated to *this*  
 ‘ Study, as well as there are to *Medicine*, and the  
 ‘ *Civil Law*.

‘ Almost all the Poets, except those, who were  
 ‘ not able to eat Bread without the Bounty of  
 ‘ Great Men, that is, without what they could get  
 ‘ by flattering them, have not only withdrawn  
 ‘ themselves, from the great World, into the Hap-  
 ‘ piness of a retired Life ; but have commended,  
 ‘ and adorned Nothing so much, by their ever-  
 ‘ living Poems.—*Hesiod* was the first, on second  
 ‘ Poet in the World, that remains yet extant, and  
 ‘ He is the first Writer, too, of the Art of Hus-  
 ‘ bandry, &c.

– Mr. *Cowley* adds a great deal more, which I  
 forbear to insert ; and only observe, that, as no  
 Man knew Truth more clearly, than that Author,  
 no Man could possibly have delivered it more grace-  
 fully—Honest Mr. *Walter Blith* is a Person, to  
 whom we are much indebted for a free Communi-  
 cation of his Knowledge in this Art. He was him-  
 self a *Husbandman*, and seems but to have wanted  
 the Addition of a little Learning to his great Ex-  
 perience, to have made him even more useful, than  
 he

he is. He knew, too well, the surly Backwardness of most Countrymen to receive new Notions, and reproves it very sharply, in an Epistle before an excellent Piece of his, entitled the *Improver Improved, &c.*

“ There is, *says he*, among you a calumniating, and depraving every new Invention; and the most guilty of this are your mouldy, old leavened *Husbandmen*, who themselves, and their Forefathers, have been accustomed to such a Course of Husbandry, as they *will* follow, and no other. Their Resolution is so fixed, that no Issues, or Events shall change them; If their Neighbour has as much Corn on *one* Acre, as they from *two*, upon the same Land, yet, so he *will* continue: Or, if an Improvement be offered to him, and all his Neighbours, he’ll oppose it, and degrade it; What, forsooth, *says he*, who taught you more Wit, than your Forefathers? Would *they* have neglected this Advantage, had there been any? and I know not what simple Chaff, to blind themselves. This proud, unteachable Spirit an ingenuous Man abhors, which banes, and poisons the very Plenty of our Nation. These Prejudices, both upon your Minds, and Practices, which bolt you out from Wealth and Glory, my dear Friends, and Fellow Husbandmen, I pray you, lay aside, and do but walk with me in Charity through this Discourse, and I doubt not to convince you,” &c.

The same good Man, in another Place, tells us—  
“ To multiply more Scripture, where all Experience makes it clear, is but to prove a Principle ungain-said.—The Usefulness of it is no less, than the Maintenance of our Lives, our Estates, the Kingdom, and the whole World: Nay, the Advancement of the Fruits, and Profits of the Earth, by Ingenuity, is little less, than the Addition of  
a new

' a *new World* : All other Callings proceeded hence;  
 ' the *Merchant* is a gallant Servant to the State, he  
 ' fetches it from far, and 'tis a great Inrichment  
 ' to the Nation : But he purchases from others ;  
 ' he raises it not from *Nothing*, but parts with good  
 ' Silver or Gold, or some other Equivalent for it ;  
 ' but this *Merchant in Husbandry* raises it from the  
 ' Earth ; which, were it not for his Industry,  
 ' would neither yield, nor discover its Riches :  
 ' And what parts he with ? At what Rate does he  
 ' purchase ? why truly with the Wages of those  
 ' very Poor, maintained in Labour, who must be,  
 ' else, at the same Charge, maintained in Idleness :  
 ' Oh ! the Excellency, Antiquity, and Usefulness  
 ' of this noble Art ! First, remember your Service  
 ' to God, and let all the rest of your Application  
 ' be poured out upon Husbandry, accounting *That*,  
 ' the second Thing necessary.—*A Blessing is upon*  
 ' *the Head of him, that tilleth Corn ; and the*  
 ' *Thoughts of the Diligent shall bring Abundance.*

*Improver Improved, P. 4, and 5.*

*What the Skill of this Author enabled him to do,*  
*and teach others, may be best seen by his own Ex-*  
*amples.—*

' As for boggy Lands, says he, in Page 26 of  
 ' the same Book, I have recovered several Pieces  
 ' next to plain Quagmires ; the Means of doing  
 ' which you have been taught in the last Chapter ;  
 ' so bad, and so boggy, that no Cattle could tread  
 ' upon it, but they were lost ; and yet, I recover-  
 ' ed it, by this Course, to perfect Soundness, and  
 ' made it worth thirty, and forty Shillings an Acre ;  
 ' And the like I dare undertake in any such Lands  
 ' whatever.

' Again, Page 102.—I once held a Piece of  
 ' Land, full of your soft Rushes, as high as any  
 ' ordinary Beast, and very wet : I conceived it not  
 ' able to bear Barley, it was so weak, and barren,



' so cold, and queasy ; and the Neighbours, very  
 ' able Husbandmen, so discouraged me, that they  
 ' desired me to forbear Tilling it ; yet I, resolving  
 ' to make a full Tryal, set upon it, according to  
 ' the Rules just now given you : and, for the first  
 ' Crop, which was but of Oats, I could have had  
 ' Six Pounds an Acre, being offered it by an  
 ' Oatmeal Man, unasked, as it stood upon the  
 ' Ground.' ---

Page 133—*Speaking of the right Art of liming*  
*Ground, he says,* '—whole Countries, and as many  
 ' Counties, that were, naturally, as barren, as any  
 ' in the Nation, have upon Land, not worth a  
 ' Shilling an Acre, raised, after such a Liming, as  
 ' good Wheat, Barley, white and grey Pease, as  
 ' *England* yields ; yea, they will take a Parcel of  
 ' Land from off a Lingy Heath, or Common,  
 ' not worth the having ; Nay, many will not have  
 ' it, if they might ; and raise as gallant Corn, as  
 ' any whatsoever, worth five, or six Pounds an  
 ' Acre.'

In another Place he describes the Nature, and  
 Benefit of *Marle*, and, endeavouring to persuade  
 a more general Search after it, he gives this In-  
 stance of its Excellence.

' Upon a hard, enclos'd, woodland Farm I  
 ' rented, I had about fifteen or sixteen little short  
 ' Lands, which were of so gravelly a Nature, that  
 ' there was but two Inches of Earth, before you  
 ' came to as perfect Gravel, as any *Highway* ; nay,  
 ' 'twas so exceeding barren, that it turned, in many  
 ' Places, to *Cinder*, like the Corruption of Coals,  
 ' Iron and Fire congeal'd, which the *Smith* throws  
 ' out of his Forge : However, resolving to make  
 ' an Experiment, I search'd for *Marle*, and found  
 ' it, where none had ever been known in the Me-  
 ' mory of Man, nor within many Miles of it : I  
 ' imagined, it might lie in an old strong, *Clay Pool*,  
 which

' which I cleans'd, and succeeded :---And, because  
 ' I would make an undeceivable Experiment, I  
 ' carried out the Mud, which I took from the  
 ' Pool, and with That covered two Lands ; I  
 ' dunged two more, and two I sheep-folded : I  
 ' marled three or four, plowed them all alike,  
 ' and sowed them with Wheat.---From my marl-  
 ' ed Land I reaped most incomparable Corn ;  
 ' from the rest very good, except the Land, on  
 ' which I laid nothing ; and, from That, I reaped  
 ' nothing, no not so much as Straw, tho' I had  
 ' given it the same Seed, and the same Tillage, as  
 ' I gave the Rest.---The next Year I sowed Bar-  
 ' ley ; the marled Land produced extremely ; the  
 ' others began to decay, and, from the unmanured  
 ' Spot, which had this Year been sown with Oats,  
 ' I could not reap so much as a single Stalk.----  
 ' The Third Year I marled the unfruitful Piece,  
 ' and then, That, which could bring forth No-  
 ' thing the two former Years, produced as fine a  
 ' Crop of Corn as ever was seen ; and continued to  
 ' yield most plentiful Harvests, for twelve or four-  
 ' teen Years together, without any other Addition  
 ' of Dung, Soil, or the least Compost whatso-  
 ' ever.'--- *Improver Improved, P. 137.*

*He afterwards tells us, P. 164, of a Gentleman,*  
 ' who had, by Accident, (while a Boy) planted a  
 ' hundred *Ashes* about his Father's Grounds, which  
 ' very Trees he afterwards sold for five hundred  
 ' Pounds :---*This is yet exceeded by his other Relati-*  
 ' *on* of a Merchant, who planted so much Wood,  
 ' in his own Life Time, as he refused fifty thou-  
 ' sand Pounds for the Purchase of,"

*He goes on with a pretty Story of a poor Wo-*  
 ' man, ' whose whole Estate was a little Slip of  
 ' garden Ground, with an Ash or two in the Hedge  
 ' of it.--A strong Autumnal Wind blew all the  
 ' *Ashen Keys* about her Garden ; so that, in the  
 ' Spring,

‘ Spring, it was metamorphosed into a hopeful  
 ‘ Plantation, with the Plants above Ground, as  
 ‘ green as a Leek.—The Woman was religious  
 ‘ enough to cherish her new Progeny ; and how-  
 ‘ ever loth to lose her Garden, resolved, at last,  
 ‘ to let them grow.—She did it ; and, having  
 ‘ such a promising Nursery, became a Planter,  
 ‘ and by selling Setts about the Country, obtained  
 ‘ a very handsome, and enlarged Livelyhood.’-

Page 170.

*The same Author, speaking of Clover, Page 186,*  
*says, ‘ what stands you the first Year, in twenty*  
*‘ or five and twenty Shillings an Acre, and, after*  
*‘ That, in not above ten Shillings a Year, which*  
*‘ he supposes the Rent of the Land, will produce*  
*‘ six, eight, or ten, nay twelve Pounds per An-*  
*‘ num for every Acre. And speaking of Orchards,*  
*‘ he says, I know many growing upon Land, that*  
*‘ was not worth six Shillings an Acre when they*  
*‘ began the Work ; and That some thousands of*  
*‘ Acres, too ; which Land is, now, brought to*  
*‘ that Improvement, that they make twenty Pounds*  
*‘ an Acre ; if I should say forty or fifty Pounds,*  
*‘ I should find sufficient Testimony for the Truth*  
*‘ of it.’*

Page 166.

Mr. *Mortimer*, a very ingenious Gentleman, as  
 appears by his Writings, some few Years since,  
 published a Treatise on our Subject, dedicated to  
 the *Royal Society*, of which he himself was a Mem-  
 ber, wherein he gives Evidence for us, in these  
 Words.

‘ Tho’ Agriculture is what some may have a  
 ‘ slight Opinion of, yet, ’tis one of those Arts,  
 ‘ to the Teachers whereof Dr. *Spratt*, now Bishop  
 ‘ of *Rocheſter*, says, the Antients paid the Diviner  
 ‘ sort of Honour : And tho’ the Zeal, by which  
 ‘ they expressed their Gratitude, to such Benefac-  
 ‘ tors, degenerated into Superstition, yet has it  
 ‘ taught



taught us, that a higher Degree of Reputation is due to the Discoverers of profitable Arts, than to the Teachers of Speculative Doctrines, or to Conquerors themselves. But I need say little, either of the Antiquity, or Usefulness of Husbandry, since so many great, and learned Men have thought it worth their Study, and Commendation. And that the Advantages of it reach all Parts and Persons in the World; so that there can be Nothing more universally good, nor, consequently, better deserve your honourable Protection.

*Mortimer's Art of Husbandry.*  
In Page the 9<sup>th</sup> of this Author's Book we are told, that, 'in Cumberland, a small Parcel of Ground of two Acres and a half, is lett for eleven Pound per Annum; and that the emptying the Town Tan-pits on it, is the only means, by which it has been raised to that Value.'

One Mr. John Edmunds, of Bowden in Cheshire, has given the following Account of improving his Ground by Sand only; — His Land, he says, was 'marsh Land, very flat, and full of Rushes; of a black, deep Mould; such as they dig Turf in: Upon which Land he laid after the Rate of 300 Load of Sand upon an Acre:—The Sand was red, hot, and of a small Grain; He sowed it, first, with Oats, and Fitches, and had an extraordinary Crop; The next Winter he dunged it well, and had, the Summer after, fourteen Loads of Hay upon an Acre.---'Tis now, he says, 'twenty four Years since he sanded it, and he has not dunged it since; And the Land, that before was not worth ten Shillings an Acre, he can now let for six Pound, and could have two Crops upon it every Year, if he could be sure of fair Weather to make it in.'

*Mort. of Husbandry, Vol. 2d. P. 17.*

*Liebault, the Author of a French Folio, entitled, The Country Farm, addressing himself to the Prince of Soyons, tells him---* ‘ among all the Sciences, which Man can possibly attain, by Practice, or by Speculation, there is none so elevated, or so ravishing to human Sense, as that of Husbandry : Neither is there any Study, so delightful, so profitable, or so necessary for the very well-being of Mankind in general.’

‘ There is Nothing wanting, says Mr. Gabriel Platt, in an excellent Tract, which he calls, *A Discovery of hidden Treasure*, but willing Minds, to make this Country the Paradise of the World. If Gentlemen of Quality would but lay the first Stone, all would follow without Question : For Gain the Loadstone of the World, being once laid open by Practice, would draw the Rest, infallibly.---There is no Cause, that I know of, for their being slack in it. There are a great Number of Parishes within my Knowledge ; and, without Question, infinitely more, that I know not, where a Landlord, by laying out a very little Money, upon his Estate, may gain as much again, as he would by purchasing new Lands, tho’ the Purchase-Money were to be given him. And this Business is not to be slightly thought upon, for as much as Husbandry is the very Nerve, or Sinew, that holds together all the Joints of a Monarchy.’

*The same Author, Page 32.---* ‘ I have known, in England, Hay Ground improved, by this Means, from ten Shillings, to above ten Pound an Acre.--Again.--I know a Man, not far from London, who, by laying out three hundred Shillings, improved his Estate three hundred Pounds a Year.’

*In another Place, Page 63.---* ‘ Whereby it appears of what high Consequence Husbandry is

' in a Nation ; viz. the very Legs, and Pillars of  
 ' it, without which it cannot stand ; no, not by  
 ' any Device, or Policy whatsoever.—And, there-  
 ' fore, I would have every well-wisher to the pub-  
 ' lick Good, be diligent in the Furtherance of it :  
 ' And *Mr. Markham, Googe, Tuffer, Sir Hugh*  
 ' *Platt*, and others, who have manifested their good  
 ' Will, by publishing their Knowledge in this Be-  
 ' half : I would desire, that no Man may think much  
 ' of his Labour, but try Experiments of this Nature,  
 ' whose Effect *must* prove beneficial to all, present  
 ' and future. But, if any Man be willfully negli-  
 ' gent in this Duty, he manifests his Unworthiness  
 ' to all Posterity. Admit he be accounted a con-  
 ' ceited Fellow, or One, that runs out of the  
 ' common Way ; yet, in Regard the common  
 ' Way leads to Perdition, let him not desist for a  
 ' few frivolous Aspersions : For, when Light and  
 ' Truth shall appear in the World, his Worth shall  
 ' shine out, beyond a Possibility of being eclipsed,  
 ' by the Tongues of conceited Fools, and idle  
 ' Coxcombs.'

*A little further, he adds---* I wish, that they, who  
 ' love not to try Experiments, may take their Ease,  
 ' and will lay no heavier Task upon them, than to  
 ' wish well to others ; only, I would desire them  
 ' to consider, what a wretched Case they had them-  
 ' selves been in, if some more inventive Brains had  
 ' not found out the *Plow*, and the Use thereof :  
 ' As also, if some, of a like Disposition, had not  
 ' discovered new Ways for the fructifying of Land,  
 ' when its worn Condition refused Encrease, suffi-  
 ' cient to sustain the numerous People."

*Discovery of hidden Treas. P. 86.*

I happened just now to mention the *Royal So-*  
*ciety* : Let us see the Opinion of one of its wor-  
 thiest Members, the elaborate Mr. *Evelyn*, in his  
*Sylva*.

's Country! and  
This



' This Discourse, *says he*, was delivered to the  
 ' *Royal Society*, in Obedience to their Commands,  
 ' and is only for the Encouragement of an Indu-  
 ' stry and worthy Labour, too much, in our Days,  
 ' neglected ; as happily reputed a Consideration of  
 ' too fordid, and vulgar a Nature for noble Per-  
 ' sons, and Gentlemen to busy themselves withal ;  
 ' and who oftner find Ways to fell down and de-  
 ' stroy, than repair or improve : But we are not  
 ' without Hopes of taking off these Prejudices, and  
 ' of reconciling them to a Subject, and an Industry,  
 ' which has been consecrated, as I may say, by as  
 ' good, and as great Persons, as any the World  
 ' has produced ; and whose Names we find mingled  
 ' among Kings and Philosophers, grave Senators  
 ' and Patriots of their Country :---For such, of  
 ' old, were *Solomon*, *Cyrus* and *Numa*, *Licinius*,  
 ' surnamed *Stolo*, and *Cincinnatus* ; the *Pisos*, *Fabii*,  
 ' *Cicero*, the *Plinies*, and thousands more, whom  
 ' I might enumerate, who disdained not to culti-  
 ' vate these Rusticities, even with their own Hands ;  
 ' and to esteem it a great Accession, to dignify their  
 ' Persons, and adorn their Purple, with these rural  
 ' Characters of their Affections to Planting and the  
 ' Love of *Agriculture* ; which has transmitted to  
 ' us their venerable Names through so many Ages,  
 ' and Vicissitudes of the World. That famous An-  
 ' swer alone, which the *Persian* Monarch gave to  
 ' *Lyfander*, will sufficiently justify what I have said ;  
 ' besides That, which we might add out of the  
 ' Writings and Examples of the Rest. But I hasten  
 ' to advise Men not to commit themselves to the  
 ' Dictates of their ignorant Servants, who are, ge-  
 ' nerally speaking, far fitter to learn, than instruct  
 ' others.--*Male agitur cum Domino, quem Villicus*  
 ' *docet*, was an old Observation of *Cato's* ; and *Is-*  
 ' *idoneus* of what <sup>13</sup> *Socrates*, that it was far easier to  
 ' make, <sup>13</sup> find a good Husbandman. I have  
 ' often

' often proved it so, in *Gardeners* ; and, I believe,  
 ' it will hold in most of our Country Employ-  
 ' ments : We are to exact Labour from *them*, not  
 ' Conduct and Reason : This Business is a *Science*,  
 ' and beyond the Reach of their shallow Capac-  
 ' ties ; on the contrary, as the *Orator* has expressed  
 ' it, there is nothing more becoming, or more wor-  
 ' thy of a *Gentleman*. The true Reason, says *Pa-*  
 ' *lissy* a *French* Writer, why Husbandry is no more  
 ' improved in this Age of ours, is, that, when Men  
 ' have acquired any considerable Fortune, by their  
 ' good Husbandry and Experience, forgetting that  
 ' the greatest Patriarchs, Princes, their Sons, and  
 ' their Daughters, belonged to the Plow and the  
 ' Flock, they account it a shame to breed up their  
 ' Children in the same Calling, to which them-  
 ' selves were educated ; they must be presently  
 ' made Gentlemen ; they must, forsooth, have a  
 ' Coat of Arms, and live upon the Rents of their  
 ' Estates ; so as by that Time his Beard grows,  
 ' he begins to be ashamed of his Father, and is  
 ' ready to defy the Man, who, at any Time, re-  
 ' minds him of his honest Extraction : If it chance,  
 ' the good Man has other Children to provide for,  
 ' *This* must be the Darling ; be bred at School, and  
 ' University, while All the rest must to Plow with  
 ' their Father.—This is the Cause, that our Lands  
 ' are so ill cultivated : Every body will subsist up-  
 ' on their own Revenue, and take their Pleasure,  
 ' while their Estates are resigned to the Manage-  
 ' ment of the most ignorant ; which are, either the  
 ' Children kept at home, as I said before, without  
 ' Learning or Experience ; or *Hinds*, if possible,  
 ' more ignorant than they ; when, as in Truth,  
 ' and Reason, the more Learning, the better Phi-  
 ' losophers, and the greater Abilities they possess,  
 ' the more, and the better are they qualified to  
 ' cultivate and improve their Es<sup>ts</sup>, Country ! and  
 ' The

*The same Author, Page 219.*---‘ Whatsoever is  
 ‘ proposed to our Husbandmen, above their usual  
 ‘ Course, is looked upon, as the Whim and Fancy  
 ‘ of speculative Persons, which they turn into *Ri-*  
 ‘ *dicule*, when applied to Action : And this, says  
 ‘ an ingenious and excellent Husband, might be  
 ‘ the Reason, why the prime Writers of all Ages,  
 ‘ endeavoured to involve their Discourses with Al-  
 ‘ legories, and enigmatical Terms, to protect them  
 ‘ from the Contempt and Pollution of the Vulgar ;  
 ‘ which has been of some ill Consequence in Hus-  
 ‘ bandry, and made the fewer Writers adventure  
 ‘ upon so plain a Subject, though, doubtless to  
 ‘ any considering Person, the most delightful Kind  
 ‘ of natural Philosophy ; and that which employs  
 ‘ the most useful Part of the *Mathematicks*.’

*A little further, you have a Specimen of the Pro-*  
*fits of the Art, in one of its Branches, Planting only.*

‘ Even this Improvement, says he, speaking of one  
 ‘ foregoing, does no Way reach what I have met  
 ‘ withal, in the most accurate, and no less labori-  
 ‘ ous Calculation of Capt. *Smith*, upon this very  
 ‘ Topic ; where he demonstratively asserts, that a  
 ‘ thousand Acres of Land, planted at one Foot  
 ‘ Interval, in seven thousand two hundred and one  
 ‘ Rows, taking up fifty one million, eight hun-  
 ‘ dred, and one Plants of *Oak*, *Asb*, and *Chesnut*,  
 ‘ and fit to be transplanted at three Years End,  
 ‘ are then worth eighteen Pence a hundred, besides  
 ‘ the Chesnuts, which, being a Third of the whole,  
 ‘ and worth half a Crown a hundred, the three  
 ‘ Years Profit of one thousand Acres, amounts to  
 ‘ forty seven thousand, five hundred, and thirty  
 ‘ three Pounds, four Shillings.’ *Sylva*, P. 221.

*Will you hear the Sentiments of an honest Survey-*  
*or, whose Business made him the more capable of ob-*  
*servations on the universal Ignorance of Agriculture, which*  
 ‘ nears of what ?—‘ We have indeed, says he, a  
 Kind



' Kind of plodding, and common Course of Husbandry, and a Kind of peevish Imitation of the  
 ' *most*, who, as wise Men note, are always the  
 ' *worst* Husbands; and who only try what the  
 ' Earth will do itself, and endeavour not to help  
 ' her, by the Means which Nature has provided;  
 ' whereas, if Men were but a little careful, and industrious, the Earth would always yield above  
 ' a hundred per Cent. Reward for a good Husband's Charges, without the Curses of corroding Usury.'

*Surveyor's Dialogue, P. 223.*

*The next Witness shall be Mr. GOOGE—* ' Do  
 ' you wonder, *says he*, to see me delight myself  
 ' in the Raptures of so honest, so profitable a Life,  
 ' as that of a Husbandman. Do you not know,  
 ' that, in the Judgment of the holiest and wisest  
 ' Men, there is nothing more eligible, nothing  
 ' more illustrious? Neither is there any Life besides so fit for a Gentleman, nor any other Profession so acceptable to God.—The Antients, I  
 ' appeal to *Cato*, when they would raise Commendation to its highest Pitch, would call a Man  
 ' *Good Husband*, as comprehending in That Name,  
 ' the utmost Praise they could give him.'

*Googe of Husbandry, P. 5.*

*Again.—* ' The only Gentlemanlike Way of  
 ' growing rich, is, by the Art of Husbandry:  
 ' All other Professions have something in them of  
 ' the *mean* and *subservient*: This alone is free and  
 ' noble; and the Wealth thus gotten may almost  
 ' be said to be of a Man's own *creating*.—Country  
 ' People were, in all Ages, preferred before the  
 ' Inhabitants of Cities, as having more Nobility  
 ' affixed to their Practice, than such as, living securely within Walls, were safe, and idle under  
 ' the Shadow of a Pent-house.—How much less  
 ' noble is the Man, who sells his Blood, not for  
 ' the Service, but the *Pay* of his Country! and  
 ' how

‘ how far below the Countryman must he be placed, who bawls at every Bar for Gain! and holds out his Hand to every Bidder!’ *Page 8th.*

Mr. Gabriel Platt, in a *Letter to Mr. Samuel Hartlibb, which is printed in a Discourse on this Subject, observes, That---*

‘ it is found by Experience, that where a good Council of War is, there a Camp is well defended; and where a good Physician, the Diseases of the human Body are less fatal.--Why should it not be so in Husbandry? *says he.* And does not that Art deserve an Academy, upon which the Happiness of all Kingdoms does depend? Surely, if a certain Number of the most experienced Men were deputed for this Purpose, who might regulate the rest, it would produce a great Perfection in that Knowledge, which, as it is the most antient of all Sciences, so it is the most excellent and honourable; for by it all Princes live; and no Man can possibly live without it.--The Rabble are like those in *Ireland*, who will not lay aside their old Custom of drawing Horses by their Tails, tho’ a solemn Law be made against it. I have known some Parsons of Parishes pretty skilful in Agriculture, and excellent Improvers of Land: And I have, now and then, met with a *Landlord* qualified with the same Skill: And certainly, if All were so, it would conduce greatly to the Prosperity of a Kingdom, tho’ the chief Profit would redound to the two particular Ranks of Men, above-named. I have known many Men live better with thirty Acres of Land, than others could upon a hundred; and, if need require, I can shew, where *One Acre* of Land is worth two hundred Pound a Year, and a whole Family has not only lived well, but gathered a good round Sum out of it.’

*Annotations on the Legacy, P. 205, 206.*

*A Dis-*

*A Discourse, which was printed soon after the Restoration, under the Name of MERCURIUS LÆTIFICANS, has, among other Observations, this Hint towards our Subject :---* Let all Men be pleased to  
 ' take into Consideration that, as in every Cen-  
 ' tury of Years, there do more Men die than are  
 ' in the World, at any one Time; so also, in  
 ' every Century, there is more Wealth lost to the  
 ' Nation, for Want of a compleat Knowledge in  
 ' the Art of Agriculture, than there is in the King-  
 ' dom, at any one Time, though an Inventory  
 ' were taken at *Michaelmas*, when the whole Year's  
 ' Fruits are engrossed together; and yet such an  
 ' Inventory will much more than double another,  
 ' which should be taken a *May-day*, when the old  
 ' Fruits are almost wasted, and little remains, but  
*Hopes*; which are not usually put into Inventories.'

*A Complaint of our particular Deficiencies in this Art, which bears the Name of Mr. CRESSY DIMOCK, after having recommended to the Husbandmen several Practices, which are still unintroducted among us, reproves the general Backwardness he met with, in this Manner.*

' But some will object, that they will not grow  
 ' here with us: Our Forefathers never used them.  
 ' To those I reply, and ask them, how do they  
 ' know? have they tried?---Idleness never wants  
 ' an Excuse; And why might not our Ancestors,  
 ' upon the same Ground, have held their Hands  
 ' in their Pockets, and presumed that Wheat and  
 ' Barley would not have grown amongst us? or,  
 ' why should they not have been discouraged from  
 ' planting *Cherries, Hops, Liquorice, Potatoes, Apri-*  
 ' *cots, and Peaches?* And from sowing *Rape-seed,*  
 ' *Colliflowers, Great Clover, Canary-seeds,* and  
 ' many more of this Kind? And yet we know,  
 ' that some of these have been introduced, and  
 ' most



‘ most of them brought to Perfection, even in our Days.’

*Will you have another Example of what Land is capable of doing ?—*‘ A Friend of mine, says Mr. Platt, about Michaelmas, plowed up twenty Acres of Grass Ground : He afterwards cross-plowed it, and harrowed it three or four Times, to kill the Grass, and mingle the fat Earth with the lean ; He sowed it, about the Beginning of March, with Barley, which before the vehement Drought came, had as it were, turf’d the Ground with its Spires, it came up so thick : So that the Drought, which spoiled the thin, and common Corn in the barren Fields, could only shorten the Stalk of this Barley ; while the rich Earth put forth a large and thick Ear, with plump and round Grain ; by which Means it came to pass, that he had, upon every Acre, thirty Quarters of Barley ; and the Price being raised that Year by the Drought abovementioned, he sold it off for forty Shillings a Quarter ; and in the Face of a thousand unbelieving Ignorants, received twelve hundred Pounds for twenty Acres of Barley.’

*Annotations, Page 187.*

*You will wonder to hear of such a Harvest : Let the same Author plead his own Cause ; and indeed, he is very able to do it.---*‘ If any Man, says he, asks, why this great Improvement of our Lands is hardly followed by any one Man in the Nation ? The Answer is very easy.---Few there are, who understand these Ways, and fewer far will give themselves the Trouble of thinking to the Purpose : All Men are, from their Youth, brought up to Idleness, or Business : If to Idleness, who can expect a good Effect from so bad a Cause ? And, if to Business, they are so fixed, so rivetted in their particular Way, before they become Masters of a Discretion capable of chusing, that  
\* they

\* they cannot wind themselves out of those former  
 \* Engagements, which afford them a *certain* little  
 \* Profit, for an *uncertain* great One : At least for  
 \* One, which they imagine not *so* certain, as their  
 \* own : Besides, Men are commonly possessed with  
 \* a sturdy Dislike of any Proposition, which, to  
 \* set them *right*, must first convince them, that  
 \* their former Measures have been *wrong*.

Annotations, P. 278.

\* Some, says the same Gentleman, in another Place,  
 \* may object, that if this Art, Trade, or Profession  
 \* of Husbandry were, indeed, so profitable, as you  
 \* pretend, why do we not then see more *rich* Men  
 \* of that Sort ? And why do so many Farmers live  
 \* so poorly and so beggarly, that one might as  
 \* well take them for their Landlord's *Slaves*, as  
 \* for his *Tenants* ? I answer, that this Presumption  
 \* is, in itself, a downright Mistake ; for there are  
 \* many Times over, more Estates acquired, by  
 \* what you call plain *Farming*, than by any other  
 \* Profession in the Nation : Nay, the best, and  
 \* noblest Families amongst us have been raised by  
 \* the *Plow* : And there are, at this Time, Mul-  
 \* titudes of *Graziers*, *Sheep-masters*, and *Corn-*  
 \* *masters*, who, by their personal Industry in this  
 \* Art, have acquired such vast Estates, that were  
 \* the Worth of Mankind to be disputed, by the  
 \* Weight of their Bags, they could produce their  
 \* *Thousands*, and their *Ten thousands*, in as for-  
 \* midable Array, as if they had been used to ap-  
 \* pear at the Head of our City Militia.

\* But, allowing the Position *just*, it toucheth not  
 \* the *Art* ; The Fault is in the *Professor*, not the  
 \* *Profession* : Our *Farmers* (for to call them *Hus-*  
 \* *bandmen*, were to flatter them with a Title they  
 \* have no Pretence to) have only certain, general,  
 \* rude, imperfect, and irrational Rules, or Cus-  
 \* toms rather, which their Forefathers, just as wise

' as They, have left them; and from which, like  
 ' a dull Ass, who is so fond of his natural Pace,  
 ' they can never be driven: Nay, they are so ri-  
 ' diculously averse to all *new* Practices, that 'tis a  
 ' meer Impossibility to infuse any such Thing into  
 ' their Heads; no, not by manifest Example un-  
 ' der their very Noses.—The Stubbornness of these  
 ' Men's Natures is easily discovered by any Man,  
 ' who will but propose some Means, to turn their  
 ' *barren Land* into *fruitful*, or prevent the *Rot*  
 ' among their *Sheep*, or *Murrain* among their *Cat-*  
 ' *tles*. He will not only see his Motion utterly re-  
 ' jected, but himself derided, and privately scoffed  
 ' at: But Ignorance was never, yet, a wise Man's  
 ' Ruler.—Be not easily diverted from experiencing  
 ' the Truth, and be assured, that He, who, have-  
 ' ing any tolerable Stock to begin with, does first  
 ' inform himself with Care, and then proceed  
 ' with Resolution, cannot fail to be as rich, as he  
 ' desires; and *that* with an Honesty, the Consci-  
 ' ousness whereof will add a Relish to his Plea-  
 ' sures.'

Page 265, 266.

In the Papers, which were published by Mr.  
 HOUGHTON, a Fellow of the ROYAL SOCIETY,  
 under the Title of *Letters for the Improvement of*  
*Husbandry and Trade*, we have much Matter for  
 our Purpose, of which I will only give you a few  
 Particulars.—In *Volume the 1st*. Page 16, we have  
 the following Letter.

' S I R,

' I am very glad, you have undertaken this  
 ' Task, and question not but, in a little Time,  
 ' the Kingdom will have Reason to thank you.  
 ' For my Part, I do; as well foreseeing the Ad-  
 ' vantages, which must attend it.—In Answer to  
 ' your Inquiries about *Meadow*, *Number 4*, I'll  
 ' tell you what Success I had by *Clover*.

' I have



' I have a Piece of Land, that used to be reckon-  
 ' ed eight Acres; it was a common Field, and  
 ' usually lett, by my Predecessor, for three Pound  
 ' a Year. This I enclosed two Sides of, the other  
 ' two Sides lying to other Enclosure, and being  
 ' done to my Hand.—I made a Ditch five Foot  
 ' deep, and six or seven Foot broad; the Earth,  
 ' that was thrown up, I carried it off, and laid it  
 ' on my Land, which both improved my Ground,  
 ' and prevented the Rabble from taking the first  
 ' Opportunity to fill up my Ditch again. I pre-  
 ' pared this Land, as is usually done for *Oats* and  
 ' *Clover-grass*, both which I sowed, and all my  
 ' Charge amounted to about seventeen Pound:  
 ' And, that Year, I made above twenty Pound  
 ' of it. Next Year, without any further Charge,  
 ' it cleared me forty Pounds,' &c.

' Several of my Neighbours have found great  
 ' Advantage by this, and several other new Hus-  
 ' bandries, of which, hereafter, I may give you a  
 ' particular Account: Interim subscribe, &c.'

' SIR,

' Since I have been acquainted with your ex-  
 ' cellent Design of promoting the Husbandry of  
 ' *England*, as much as in you lies, I'll tell you what  
 ' I met with, in a little Journey to *Theobalds*.

' There is a considerable Gentleman, who has  
 ' enclosed a Piece of Ground, containing six Acres:  
 ' This he plowed and ordered it for Wheat; and  
 ' about *Midsummer*, sowed it with *Cole-seed*: He  
 ' had a hundred *Welsh* Ewes, which he would have  
 ' sold to the Butchers, but they would give no  
 ' more than half a Crown a Piece for them.—  
 ' Upon this, about the Beginning of *November*, he  
 ' put them into his *Coleworts*; They happened all  
 ' to cast their Lambs before *Christmas*; some a  
 Month

‘ Month before.—The *Coleworts* fed the Ewes  
 ‘ so well, that the Lambs were sold off, from eight  
 ‘ to fourteen Shillings a piece. When the Growth  
 ‘ was eaten up clean, he sold the hundred Ewes  
 ‘ for a hundred Crowns ; and then prepared his  
 ‘ Land for *Oats* ; which he sowed, and received  
 ‘ from each Acre, eight Quarters : And all this lost  
 ‘ him no more Time, than would have been ne-  
 ‘ cessary for a Crop of *Wheat*.

‘ This is no Romance, I had it from the Gen-  
 ‘ tleman’s own Mouth, more than once, and his  
 ‘ Neighbours all own it : I hope this Example  
 ‘ will encourage others to the like Endeavours, and  
 ‘ am, &c.’

*Houghton of Husbandry and Trade, Vol. I. P. 18.*

Another Letter, signed ADAM MARTINDALE,  
 gives the following Account of the Advantage,  
 which certain Gentlemen of *Cheshire*, made by  
*Marling* of their barren Lands.

‘ As to the *Profit*, I dare not tell Strangers what  
 ‘ my Neighbours know to be true, it has sometimes  
 ‘ been so extraordinary : I shall only *say*, that if the  
 ‘ Marl be good, and the Land proper for it, good  
 ‘ Husbonds affirm, that the Expence can hardly  
 ‘ be too much. I know somewhat by my own Ex-  
 ‘ perience ; but I can name divers of my Ac-  
 ‘ quaintances, who have very considerably ad-  
 ‘ vanced themselves in the World, this Way ; and  
 ‘ others, who, by this Means, have supported  
 ‘ themselves and their Families from Ruin, whose  
 ‘ Estates had been, otherwise, sunk, by their for-  
 ‘ mer Prodigalities.—*Vol. 1st. P. 58.*

What follows is a Letter from Dr. *Platt*, Author  
 of the *natural History of Oxfordshire*, &c.

‘ S I R,

‘ I have perused your printed Collection of Let-  
 ‘ ters, which you tell us, in your Preface to *Dr. B.*  
 ‘ shall

shall be frequently publish'd; whereof, I must confess, I am not a little glad. And it is my Opinion, that the maintaining a *Georgical* and *trading* Correspondence,—The Publication of Letters, foreign, and domestick;—And the Breviates of Books agreeable to such Matters, will be a means to make *England*, not only the most delightful, but also the wealthiest Kingdom, the World is acquainted with.

I cannot, therefore, but applaud your Design: —Proceed, as the Countryman says, and prosper, in the name of God.—And, to satisfy you, that my good Wishes, towards you herein, are cordial, I do hereby promise you my utmost Assistance for the Publick Good; *Agriculture*, I think, being the *least* improv'd of all the Arts in the Kingdom, tho' it *best* deserves it, as the most universal Beneficial.

For, whatever Husbandmen are apt to conceive of their Abilities, most of them believing, that they have brought it to the highest Pitch, in their respective Countries; And however forward they be in entertaining any thing new, tho' never so Advantageous, besides what they have received from their Ancestors;—Yet, I may be bold to advertise them, that, were they really so knowing, as they pretend; or, would they but admit of such Notices, as might be communicated, and put them in Practice, we should have no such Complaints of *uncertain Crops*, *Smuts*, *Mildews*, *Lodging of Corn*, its being eaten up by *Birds*, and the Loss of whole Crops, as now we frequently meet with.

But so *unskilful*, indeed, is the Husbandman, generally, in his own Affairs, so *ignorant*, in appropriating the Grain to the Soil, to prevent these Inconveniencies, that he knows not so much as the *Grains* themselves *fit* for these Purposes,



' though near Neighbours to him : It having been,  
 ' sometimes, found, that the very Grain, sown in  
 ' one Part of the same County, has not been so  
 ' much as heard of, in another, tho' preferable to  
 ' all others of its Kind beyond Exception.—Wit-  
 ' nesses a sort of *Wheat*, sown plentifully in the *Vale*,  
 ' between *Thame* and *Watlington*, in the County of  
 ' *Oxford*, and call'd *mix'd Lammas* ; It being a  
 ' white-ear'd, red Wheat, which, tho' bringing a  
 ' more certain Crop, and yielding considerably  
 ' better, than most other Wheats, yet, not long  
 ' ago, was altogether unknown, about *Banbury*,  
 ' and *Burford*, and, perhaps, remains so to this  
 ' Day.

' Much less are the Grains of *one* County known  
 ' in *another* : Witnesses the sort of Wheat, call'd  
 ' *red-stalk'd* Wheat, sown plentifully about *Oxford*,  
 ' which, tho' endued with the excellent Quality of  
 ' seldom, or never *Smutting* ; a conveniency, that  
 ' best pleases the Chapman, of any, yet, either has  
 ' not been heard of, or is wholly neglected, in  
 ' most other Counties. Nor less ignorant is the  
 ' Husbandman of *Long-Cone* Wheat, notwithstand-  
 ' ing its not being subject to Lodging, or being  
 ' eaten by Birds, and its constant Freedom from  
 ' that Epidemical Disease of Corn, commonly  
 ' call'd the *Mildew* ; Three Inconveniencies, some-  
 ' times so fatal to him, that, by one, two, or all  
 ' of them, he loses his Crop ; Whereas, had he  
 ' known these Grains, and would have taken the  
 ' Pains to procure, and have used them, how free  
 ' might he have been from all those Inconvenien-  
 ' cies, where-ever his Grounds had been liable to  
 ' them.

' And, as it is in Wheat, so it is, likewise, in  
 ' Barley ; For I cannot hear, that *Patney*, or *Ra-*  
 ' *theripe* Barley, is sown any where, but, in *Wilt-*  
 ' *shire*, *Berkshire*, *Oxfordshire*, and the most western  
 ' Parts

\* Parts of *Cornwall*; notwithstanding the Advan-  
 \* tage of its being early Ripe; It having, many  
 \* times, been sown, and return'd to the Barn again,  
 \* in two Months time; always, in nine, or ten  
 \* Weeks, at farthest, which is very considerable; as  
 \* well in wet, and backward Springs, and moist  
 \* Autumns, as in great Drought, when other Coun-  
 \* ties, that sow Barley, lose their Seasons, and  
 \* Crops, as they did this very Year: For, not be-  
 \* ing able to sow their Barley, by reason of the  
 \* great Drought, till after *Midsummer*, it was green  
 \* at *Michaelmas*, as I saw in *Kent*, and some other  
 \* Counties; and, as I have Reason to believe, ne-  
 \* ver came to be ripe at all; whereas, had they  
 \* but known, and used the *Patney* Barley, tho' they  
 \* sowed it not till *July*, they might have had it  
 \* in their Sacks again before *Michaelmas*; it al-  
 \* ways coming to be ripe, in the worst of Sum-  
 \* mers.

\* Whence it plainly appears, that, could you  
 \* make yourself the happy Instrument of commu-  
 \* nicating such Notices, as these, to all the Parish-  
 \* es in *England*, and so effectually, as to get them  
 \* put in Practice; for that is the greatest Work,  
 \* though one would think, indeed, Men should  
 \* make but weak opposition against their own E-  
 \* moluments, you would, for ought I know, de-  
 \* serve as much from the *Publick*, as the Founder  
 \* of *Christ's Hospital*, and all its Benefactors; and  
 \* receive the Acclamations, and Applauses, of all  
 \* good Men, as the just Reward of so great an At-  
 \* chievement, which is all, at present, but that"  
 &c. *R. Plott, P. 31, 32, 33, 34, 35, Vol. 1st.*

And now comes a worthy Knight, to join our  
 Country Chorus, SIR JONAS MOOR, who, in a lit-  
 tle Book, entitled, *England's Interest*, &c. bids fair  
 for proving, that an Acre of Land, in a few Years  
 time, may be advanced to the yearly worth of one

hundred and forty Pounds——His Words are these——

‘ To deny, that Land is capable of Improvement, is to contradict the Experience of the present, and former Ages; and to deny a Truth, as obvious as the Meridian Sun: For how many Acres of Land, in the Fen Countries, formerly no better than the *Irish Bogs*, are, now, by *draining*, and other Improvements, made as good Land as in any in *England*? And the same Improvement, that is made in the Fen Countries in one Respect may, in other Respects, be made in any other Country.——And, therefore, that Land may be improved, is what, I presume, none will deny; and, that it may be done to a far greater Advantage, than what has been hitherto practised, is what I am now to demonstrate. *P. 1st and 2d.*

We have a remarkable Improvement related in *Dr. Boat's Natural History of Ireland*, in the following Words, *Page 97.*

‘ How incredibly the Land was enriched, by this kind of Manuring, may be gathered by the ensuing Particular. The whole Lordship of *Mount-rath* was, thirty Years ago, lett (by one *Mr. Downings*, who owned it, and sold it afterwards to *Sir Charles Coote*) for fifty Pounds sterling a Year; and nevertheless, after a while, the Farmers surrendered it to him, complaining, that they could not live upon it, and that it had quite impoverished them.——Some time after, it was farmed by People, who were newly come out of *England*, at a hundred and fifty Pounds a Year.——This Family, notwithstanding the tripled Rent, did not only live very handsomely upon it; but grew Rich, and Wealthy; and did so far improve the Land, that when the last *Irish* Rebellion broke out, *That same Lordship* might have been let for  
‘ five



‘ five hundred Pounds Sterling a Year, as I have  
 ‘ been assured by several, who had themselves been  
 ‘ Farmers of that very Land.

Hence it was, says Mr. *Nurse*, in a *Discourse on the Benefits and Improvements of Husbandry*, ‘ That  
 ‘ the bravest Men, in the first Ages of the World,  
 ‘ betook themselves generally to Husbandry; which  
 ‘ however simple and rude it appeared, was found  
 ‘ very Advantageous, and Delightful; insomuch,  
 ‘ that the Poets of antient and modern Times,  
 ‘ when they would describe the true Felicity of  
 ‘ Man, and give their Fancies the largest Flights  
 ‘ of Freedom and Gaiety, borrow all their Descriptions from the Pastoral Life:—And even  
 ‘ they, who give us Characters of great Generals  
 ‘ and Princes, in Heroic Strains, still represent  
 ‘ them by Metaphors of this Nature. P. 5th.

‘ As to the Profits arising from a Country Life,  
 ‘ it is superfluous to enlarge upon that, which is so  
 ‘ obvious to all the World: And, first, in Respect  
 ‘ of the *general* or *Common-wealth*: This is the great  
 ‘ Vein, by which the Blood is distributed through  
 ‘ all, and every Part of the Body, or ’tis rather the  
 ‘ very Blood itself, since it is diffused over the  
 ‘ Whole, nor can any Part, or Member, subsist  
 ‘ without it.—It is the Foundation of Traffick,  
 ‘ and Commerce; for as much as all the Manufactures, and Commodities, which we export, or  
 ‘ receive from foreign Parts, are but the Productions of the Earth, either at the first Hand or the  
 ‘ second.—*Corn, Wine, Oyl, Fruits, Cloth, Linen,* or *Woolen, Silk*, all are the Offsprings of the  
 ‘ Earth, cultivated by Art, and Ingenuity.

‘ And, as the Husbandman is most necessary,  
 ‘ in Time of Peace, so is He, also, in the Days  
 ‘ of War; since all the *Stores*, and *Magazines*, the  
 ‘ *Arms*, the *Cloathing*, and the *Provisions* of the Field,  
 ‘ are almost solely derived from his Care, and Pro-  
 ‘ vidence.

' vidence. If we regard the particular Interest of  
 ' private Persons, it is no less obvious, that no-  
 ' thing more Advances it than Husbandry: The  
 ' many great Estates and Fortunes Men arrive at,  
 ' this way, are a certain Proof of this Truth: And,  
 ' if some miscarry, 'tis no Wonder, whether it be  
 ' by their own ill Course of Life, Ignorance, or  
 ' Negligence; or, perhaps, from some sinister Ac-  
 ' cidents, from which no State, no Condition can  
 ' be exempted; But, in the general, 'tis certain,  
 ' that, considering the vast Numbers of Husband-  
 ' men, none make so sure a Fortune as They do;  
 ' and there are ten Bankrupt Tradesmen, or Mer-  
 ' chants, for one Husbandman, throughout the  
 ' Kingdom.

Page 11, 12, 13.

' 'Tis much to be wished, that the State would  
 ' afford some Encouragement to Husbandry, by  
 ' exempting it, at least, by easing it, as to the  
 ' publick Burthens; especially, for some Years, up-  
 ' on any new Undertaking, which shall be judg'd  
 ' of a general Advantage: By this Means, Men  
 ' would venture upon *Projection*.---'Tis very well  
 ' observed by a most ingenious, and learned Gen-  
 ' tleman, in his Remarks upon one of the greatest,  
 ' most antient, and most polished Governments  
 ' upon Earth, when he tells us, That *Agriculture*  
 ' is encouraged by so many special Privileges from  
 ' the Crown, and the Common Laws and Customs  
 ' of the Country, that, whatever Wars happen, the  
 ' Tillers of the Ground are untouched, as if they  
 ' were sacred, like the Priests in other Places; so  
 ' that no Country in the World was ever known  
 ' to be so well Cultivated, as the whole Kingdom  
 ' of *Cbina*.—Whereas, with us, and other neigh-  
 ' bouring Countries, 'tis the poor Husbandman,  
 ' who must support, in a Manner, the whole Ex-  
 ' pence of a War, &c. In fine, what I have writ-  
 ' ten on this Subject is not grounded on the Re-  
 ' ports

ports and Methods of other Authors, but upon my own Observations, in a long and happy Country Life. P. 24.

Hear, next, Mr. ATWELL, in his *faithful Surveyor*.

‘ This I have seen in a dry Year, in a Meadow, near *Hartford*.——A Man, who had a Piece of Ground within the Command of Water, flow’d it, and, by that Means, made five Pound an Acre of his first Crop; when his Neighbours in better Ground, could scarce make twenty Shillings. *Faithful Surveyor*, P. 87.

‘ I have, in a wet Year, sown *Pigeons Dung* by Hand, upon my sandy Grounds, when my Crop has been sold for more than the whole Worth, or Fee-simple of the Land it grew upon.

‘ It is almost incredible, the odds of an Acre of Barley, in *Hitching Parish*, fifty Years ago, and twenty Years ago; and all, by the use of *Raggs*, and *Horn-Shavings*.——They have so mended their Soil by it, that, whereas, about fifty Years ago, an Acre of their Barley was not above three Pound ten, or four Pound the Best.——Now, about twenty Years ago, I was requested to measure two Acres of Barley, in a Field, called *Kings Field*, in *Hitching Parish*, the Crop of which was sold for nine Pound an Acre, by the Statute Pole.” *Faithful Surveyor*, P. 106, 107.

MARKHAM comes next, and informs us, who a Professor of this Art is.——‘ A *Husbandman* is one, who, with Order, and with Judgment, tills the Ground in proper Seasons; forcing it to produce whatever is necessary for the Sustenance of Man.——This is He, to whom God, in the Scriptures, gives so many Blessings: This is He, whose Labours are, of all others, the most excellent; and, therefore, to be a Husbandman, is to be a good Man.——A Husbandman may, of all Mankind, be most properly called *Lord* of  
‘ the



' the Earth, for he commands, and governs it, in  
 ' the most absolute Manner.——He says to  
 ' Barrenness, *be* thou fruitful, and encrease; and  
 ' Barrenness obeys, and brings forth Plenty.---It is  
 ' to him we owe the Bread we live upon: All  
 ' Ranks, all Callings, are dependant on him, and  
 ' upon his good, or ill Success, hangs the Fortune  
 ' of their Labours.——The *necessity* of this no-  
 ' ble Art may be inferred from its *Profit*: For,  
 ' since Profit is not only most universally aimed at,  
 ' but universally requisite, This, of all Arts, is cer-  
 ' tainly most necessary, because its Profit does so  
 ' very far exceed all other.——But I would have  
 ' Men know, that the Name of *Husbandman* is no  
 ' way due to the *Clown*, the *Peasant*, or the *Plow-*  
 ' *man*;---No---He is a Creature of another Mould:  
 ' No Son of *Adam*, from the *Cottage* to the *Crown*,  
 ' how excellent soever, if he is excellent indeed,  
 ' can possibly assume a *richer*, *better*, or a *greater*  
 ' Title, than that of *Husbandman*. *Eng. Husb. P.*  
 3, 4, 5.

AUSTIN, of *Planting*, observes, '---There are  
 ' many good Wits exercised about Toys and Tri-  
 ' fles, and who bestow excessive Time, Cost, and  
 ' Labour about meer Shadows; How much might  
 ' These advantage themselves, and others, in  
 ' searching out a thousand hidden Secrets of Na-  
 ' ture, by the Study, and Practice of *Agriculture*.  
 ' Not He, says an *antient Author*, who knows many  
 ' Things, but He, who knows *profitable* Things,  
 ' is wise.

' This Art is a mighty *Store-house* of Meat,  
 ' Drink, and Money; 'Tis a rich *Mine*, out of  
 ' which we may dig Profit and Pleasure, without  
 ' fear of ever coming to the Bottom: Nay, if you  
 ' will, 'tis the *Philosophers Stone*, which turns Trees,  
 ' Fruits, Earth, Iron, and Water, into Gold, with-  
 ' out the smallest Hazard: The Excellence of this  
 ' Employment,

\* Employment, both in the Practice, and the The-  
 \* ory, extends itself to every Place, and Person, in  
 \* the World; from the Cradle to the Grave, and  
 \* from the Beginning of the World to the very  
 \* End thereof.—Nothing can be so univer-  
 \* sally good, as This.

\* It is much easier to prevail with People by *Ex-*  
 \* *amples*, than by *Precepts*, or *Rules*; and, if Ex-  
 \* amples of Great Men, even in wicked Things,  
 \* are so powerful with most People, how much  
 \* more prevalent should they be in the honest, and  
 \* the virtuous? We have a twofold Argument,  
 \* concurring to excite the Practice of Agriculture;  
 \* *Precedents*, and those of the highest, even *Kings*,  
 \* *Emperors*, and *Philosophers*; And *Virtue*, the  
 \* highest, which any secular Profession is capable of  
 \* containing.

\* If, *says a Writer*, the Dignity of Husbandry  
 \* may be drawn from the Worth of such as have  
 \* been Husbandmen, then it is a Kingly Art, and  
 \* chiefest of all others.—*Kings, Princes, Ro-*  
 \* *man Emperors*, and the highest Powers on Earth,  
 \* have not disdain'd to perform this Work with  
 \* their own Hands, and taken great Delight there-  
 \* in.

Page 20.

\* 'This is an Age,' *says another Author*, WOR-  
 \* LIDGE, in *Laudem Agriculturae*, wherein to com-  
 \* mend, or extol an ingenious Art, or Science,  
 \* might be esteemed a needless Labour, but that  
 \* we find the more noble and worthy a Profession  
 \* is, the stronger Arguments are framed against it;  
 \* and more particularly against this rustick Art,  
 \* and its infinite Preeminencies to any other, by  
 \* the vainer, and pedantic Sort of People, who de-  
 \* spise the Value of every Thing they are ignorant  
 \* of; and judge it below their Reputation to take  
 \* Notice of so mean a Profession.—This makes  
 \* me tread in the Steps of more worthy Authors,

\* not

' not to court the Credit of the *Obstinate*, but to  
 ' confirm the *Doubtful*, of the Excellence, and in-  
 ' estimable Value of this Art; not only for the  
 ' Health of our Bodies, but the Encrease of our  
 ' Fortunes, and our universal Use, Pleasure, and  
 ' Advantage. Those, who are conversant with the  
 ' Works of antient Writers, need not be informed  
 ' how many wise and mighty Men were Tillers of  
 ' the Earth.——The Study of *Agriculture* was  
 ' of such high Esteem, that *Monarchs* themselves  
 ' have not only labour'd *in it*, but acquired a last-  
 ' ing, and immortal Name, by their Writings *of it*.  
 ' ——*Xenophon*, in his Tract of *Oeconomics*, tells  
 ' us, nothing can be of a more regal Estimation,  
 ' and Splendor, than judicious Agriculture.——  
 ' *Pliny* writes, that the *Romans* had so high an  
 ' Esteem for Agriculture, that they extended their  
 ' Laws to their Reformation of its Abuses.

' 'Tis evident, that this Art requires far less  
 ' Charge, and Expence, than Labour, and Indu-  
 ' stry; And, to possess Men with this, and encou-  
 ' rage them to it, is the Scope of all Writers, both  
 ' antient, and modern.——How much more  
 ' Praise-worthy is the Practice of this, than to spend  
 ' our Time in trifling and insignificant Studies.  
 ' It cannot be thought that such wise, and learned  
 ' Men, would so profusely scatter Praises, for which  
 ' they had not great and solid Reasons: Not to  
 ' speak of the delightful Entertainments, which a  
 ' Country Life abounds with, what Art could pos-  
 ' sibly subsist without it? This is the indulgent  
 ' Mother, by whose Milk the World is nourished:  
 ' Our Labour and our Charges here return upon  
 ' us with a manifold Encrease of Advantage.—  
 ' The Romans, when they gave Names to their  
 ' Tribes, distinguished the chief among them by  
 ' the Name of *Rustic*, and the meaner in Degree  
 ' were called the *Urbane*.



*Numa Pompilius*, to encourage Agriculture, commanded the Fields to be divided into a certain Number of Villages, over each of which he constituted a Supervisor; whose Office it was to observe who tilled his Land industriously, and who neglected it. He often sent for the diligent Husbandman, and, having courteously received him, would dismiss him with Rewards.——As, on the contrary, he would rebuke the Ignorant and Slothful. Thus some, for fear of Disgrace, and others, in hopes of Reward, were continually intent on their Affairs: The like Examples we find in several Countries, *Spain, Holland, Germany, Venice.*——In *Burgundy* they must not fell a Tree, till they have planted another near it.——And, in several Places of *Germany*, about *Hainault*, and *Frankfort*, no young Farmer is permitted to marry, till he has planted such a stated Number of Walnut Trees.——We have, in *England*, many good Laws to this Purpose, but none so slighted and neglected as *they*. But our Hopes and Expectations are now great, that something will be done herein; seeing That *Royal*, and most excellent Society, at *Gresham College*, make it the principal Object of their Studies and Care.

*Maximus Tyrius*, a most grave Philosopher, composed a Dialogue, wherein, by many and convincing Reasons, he demonstrates, that the Art of *Agriculture* is even more necessary than the *Military*.——As to the State, Qualification, and Condition of a Country Life, we may confidently affirm, that it far excells the City Life, and is infinitely to be preferred before it.——*Plato* avows a Country Life to be the Pattern of Diligence, Justice, and Frugality, &c. *System. Agric. Pref.*

Page 26, *Speaking of Clover*, he says, ‘ In *Brabant* they talk of keeping four Cows, Winter and Summer, upon one Acre of this Grass.—Here, in *England*, an Acre has kept four Coach Horses, and more, all Summer long.

‘ In *Wiltshire*, there are several Precedents of *St. Foyn*, that has been growing these twenty Years on poor Land, and hath so far improved it, that, from a *Noble* an Acre, twenty Acres together have been constantly let for thirty Shillings an Acre, and yet continues in good Proof.” Page

29.

‘ In every Part of *England* there is much waste Land, and other old Pasture that bears the Name of barren Land, which, by good Husbandry, may be made very fruitful, and profitable to the Owner, in particular, and the Common-wealth, in general; as is evident in many Parcels lately so improved.” — Page 37.

‘ This Way of *burning* is used on the poorest, and barrenest Land in *England*, or *Wales*, where, before, hardly any Thing would grow; and now there grows as good Wheat, and other Grain, as on the finest Land you have. There are many Precedents hereof, in several Parts of *England*, where, by this Means only, as much is gotten, over and above all Expences, as the Purchase of the Land was worth before.” Page 37:

‘ The Advantages of a *Cherry Orchard* are very great; Mr. *Hartlibb* gives the Relation of a *Cherry Garden*, about *Sittingburn* in *Kent*, of thirty Acres, that produced in one Year about a thousand Pound Profit.” *System. Agric. P. 114.*

‘ But think it not strange, that common and well known Plants should prove so beneficial; It is for no other Cause, but that some Men are more industrious and ingenious than others: It is hard to find any Occupation, Trade, or Employment

' ment, by which a Man may presume on so no-  
 ' ble and large a Requital of his Time, Cost, and  
 ' Industry. But ignorant and self-willed Men are,  
 ' naturally, prone to raise Objections; and thereby  
 ' deter themselves, and others, from any Thing  
 ' whatsoever, which is either Pleasant or Profitable.  
 ' ——— However, we hope better of the ingenious,  
 ' who, by becoming Precedents to their Neigh-  
 ' bours, may make our Land a Land of Plenty.'

P. 144.

P. 145.——' I mention *Hops*, in the first Place,  
 ' not for its Worth, or Dignity above the rest, but  
 ' because, of all other Plants, it advances Land to  
 ' the highest Improvement; often to forty or fifty,  
 ' and sometimes to a hundred Pound an Acre.

' Some, who have raised good *Liquorice*, have  
 ' gained well by it; the better the Land is, the  
 ' more is the Advantage.——It has cleared from  
 ' fifty to a hundred Pound an Acre.' Page 157.

I have one great Author more to quote, and  
*That* is a King, and a King of our own Nation,  
 King *James* the First, who was so far from think-  
 ing a Reward for this Art below the Majesty of a  
 Prince, that he has left behind him a very uncom-  
 mon and remarkable Proof, how earnestly he la-  
 boured to encourage it, and how zealously he re-  
 commended it to his People.——What follows is  
 the Copy of a Letter, which he sent to the *Lords*  
*Lieutenants* of the several Counties in *England*, for  
 the Propagation of Mulberry Trees, throughout  
 the Kingdom.

JAMES REX,

' Right Trusty and Well-Beloved, we greet you  
 ' well.——It is a principal Part of that Christian  
 ' Care which appertains to Sovereignty, to endea-  
 ' vour, by all Means possible, as well to beget, as to  
 ' encrease



' encrease among their People the Knowledge and  
 ' Practice of all Arts, and Trades, whereby they  
 ' may be both weaned from Idleness, and the E-  
 ' normities thereof, which are infinite; and exer-  
 ' cised in such Industries and Labours, as are ac-  
 ' companied with evident Hopes, not only of pre-  
 ' serving People from the Shame and Grief of Pe-  
 ' nury, but also raising and encreasing them in  
 ' Wealth and Abundance; the Scope, which every  
 ' freeborn Spirit aims at, not in regard of himself  
 ' alone, and the Ease which a plentiful Estate  
 ' brings to every one in his Particular, but also in  
 ' regard to the Honour of his native Country,  
 ' whose Commendations are no Way more set  
 ' forth than in the People's Activeness, and Indus-  
 ' try.——The Considerations whereof having  
 ' of late occupied our Mind, who always esteem  
 ' our People's Good our necessary Contemplation;  
 ' we have conceived, as well by the Discourse of  
 ' our Reason, as by Information gathered from  
 ' others, that making of *Silk* might as well be ef-  
 ' fected *here*, as it is in the Kingdom of *France*,  
 ' where the same has, of late Years, been put in  
 ' Practice; For neither is the Climate of this Isle  
 ' so far distinct, or different in Condition from that  
 ' Country, especially from the hither Parts thereof,  
 ' but that those Things, which by Industry prosper  
 ' *there*, may, by a like Industry used *here*, have the  
 ' same Success. Many private Persons, who, for  
 ' their Pleasure, have bred these *Worms*, have found  
 ' that they may be nourished and maintained here,  
 ' if Provision were made for planting of *Mulberry*  
 ' *Trees*, whose *Leaves* are the Food of the Worms.  
 ' Therefore, we have thought good hereby to let  
 ' you understand, that, although in suffering this  
 ' Invention to take Place, we shew ourselves an  
 ' Adversary to our Profit, by our *Customs* upon Silk  
 ' brought from beyond Sea, which will receive Di-  
 ' minution;

‘ minution; Nevertheless, when there is so great  
 ‘ and publick Utility to come to our Kingdom,  
 ‘ and Subjects in general, and whereby such Mul-  
 ‘ titudes of People of both Sexes, and all Ages,  
 ‘ such as, in regard of Impotency, are unfit for o-  
 ‘ ther Labour, may be set to Work, comforted,  
 ‘ and relieved; we are content that our *private* Be-  
 ‘ nefit should give way to the *Publick*.——And  
 ‘ therefore, being persuaded that no well-affected  
 ‘ Subject will refuse to put his helping Hand to  
 ‘ such a Work, as *can* have no other private End  
 ‘ in *us* but a Desire of the Welfare of our People,  
 ‘ we have thought good, in this Form only, to re-  
 ‘ quire you (as a Person of greatest Authority in  
 ‘ that County, and from whom the Generality  
 ‘ may receive Notice of our Pleasure, with more  
 ‘ Conveniency than otherwise) to take Occasion,  
 ‘ either at the Quarter Sessions, or some other pub-  
 ‘ lick Place of Meeting, to persuade and require  
 ‘ such as are of *Ability* (without descending to trou-  
 ‘ ble the *Poor*, for whom we seek to provide) to  
 ‘ buy and distribute in that Country, the Number of  
 ‘ ten Thousand *Mulberry Plants*, which shall be  
 ‘ delivered to them at our City of \* \* \* \* \* at  
 ‘ the Rate of three Farthings the Plant; or at six  
 ‘ Shillings the Hundred, containing five Score  
 ‘ Plants. And because the buying of the said  
 ‘ Plants at this Rate may, at first, seem chargeable  
 ‘ to our Subjects, whom we would be loth to Bur-  
 ‘ then, we have taken order that, in *March*, or  
 ‘ *April* next, there shall be delivered at the same  
 ‘ Place, a good Quantity of *Mulberry Seeds*, there  
 ‘ to be Sold to such as will Buy them: By Means  
 ‘ whereof the said Plants will be delivered at a  
 ‘ smaller Rate than they can be afforded, being  
 ‘ carried from hence: Having resolved, also, that  
 ‘ there shall be published, in Print, a plain In-  
 ‘ struction and Direction, both for encreasing the  
 ‘ Mulberry,

• Mulberry Trees, breeding the Silk Worms, and  
 • every other Thing needful to be understood, for  
 • the perfecting a Work, which is every way so  
 • Commendable and Profitable, as well to the  
 • *Planter*, as to the *Manufacturer*. — Having now  
 • made known unto you the Motives, wherein eve-  
 • ry Man is interested; because we know how  
 • much the Examples of our own *Lieutenants* and  
 • *Justices* will further this Cause; if you, and other  
 • your Neighbours, will be content to take some  
 • good Quantities hereof, to distribute upon your  
 • own Lands, we are ready to acknowledge thus  
 • much more, that all Things of this Nature, tend-  
 • ing to Plantation, Encrease of Science, and  
 • Works of Industry, are Things so naturally  
 • pleasing to our Disposition, that we shall take it  
 • for an Argument of extraordinary Affection to-  
 • wards our Person. — Besides the Judgment  
 • we shall make of the good Dispositions of all  
 • those, who shall express their Readiness to fur-  
 • ther the same, as if they sought thereby to fur-  
 • ther our Honour, and Contentment. We have  
 • seen, in few Years past, that our Brother the  
 • *French King* hath, since his coming to the Crown,  
 • both begun, and brought to Perfection, the  
 • making of *Silks* in his Country, whereby He has  
 • won to Himself *Honour*, and to his Subjects a  
 • marvellous Encrease of *Riches*. — We should ac-  
 • count it no little Happiness to Us, if the same  
 • Work, which we begin among our People, with  
 • no less Zeal to *their* Good, than any Prince can  
 • have for the Good of *his*, might, in our Time,  
 • produce the Fruits, which *there* is has done;  
 • whereof we nothing doubt, if *ours* shall be found  
 • as tractable and apt, to further their own Good,  
 • now the Way is showed them by their Sovereign,  
 • as the Subjects of *France* have been, to conform  
 • themselves to the Direction of their King. Given  
 • under



under our Signet, at our Palace of *Westminster*,  
 the sixteenth Day of *November*, in the sixth  
 Year of *England, France, and Ireland*; and of  
*Scotland*, the two and fortieth.

And now, I think, I have surrounded my Cause  
 by such an *Army* of Champions, that she need not  
 fear the Onsets of the Envious, or the Ignorant.  
 With how much Ease could I have brought a thou-  
 sand Testimonies more! But the *wise* will own De-  
 monstration, at her first Appearance, and to *Fools*,  
 or *Madmen*, who addresses his Endeavours?

The Use, I would propose from all these Proofs,  
 is, that the *Owners* of our Lands, being thus con-  
 vinced of the *Dignity* and *Profit* of an Art they  
 have so long neglected, or been ignorant of, would,  
 for the future, apply their Judgment *most* to the  
 Improvement of those Estates, which most deserve  
 their Application, and will best Reward it.—  
 Such a noble Industry would set them, soon,  
 above a thousand daily Mortifications of their pre-  
 sent Condition, and be the only Means to recover  
 that Respect, which was antiently paid to the *Land-  
 ed Interest* of this Kingdom.

But, it remains that, having said so much of the  
*Design*, I should be a little particular, as to the  
*Manner* of executing it. I shall write something,  
 on this Head, as briefly as I can; there being more  
 already written upon that Subject, than is generally  
 known.—I have myself collected near a hun-  
 dred Volumes, some of which are excellent, in their  
 several Kinds, and may almost merit the Title of  
 compleat *Systems*. The Study itself, as 'tis far  
 from difficult, will also prove the most delightful,  
 you can possibly engage in; and there only want  
*Beginners*; for, when the Ice is broke, the Wa-  
 ters will be found so very sweet, and tempting, that  
 few wise Men will draw, for constant Use, from  
 any other Fountain.

To instruct the *Willing* what Books they may enquire for, I will name the Authors, from whom you are to expect most Information in the Art, and all its Branches.

There are many Pieces extant, under the Title of *Transactions of the Royal Society*, which are interlaced abundantly, with excellent Instructions and Experiments in Husbandry.—Many of the famous Mr. *Boyle's* Works are enriched with curious observations of this Nature.—

*Lord Verulam's* Natural History.

*Systema Agriculturæ.* By Mr. *Worlidge*.

The whole Art of Husbandry. By *J. Mortimer, Esq;*

Part the 2d of the same—By the same Author.

*Sylva*, or a Discourse of Forest Trees. By *J. Evelyn, Esq;*

Dr. *Beal*, of Herefordshire Orchards.

*Markham's* Enrichment of the Weald of Kent.

English Husbandman. By *G. Markham*.

Farewell to Husbandry. By the same Author.

A Discourse of the Flanders Husbandry. By Sir *R. Weston*.

*Hartlib's* Legacy of Husbandry.

Annotations upon the Legacy. Edit. 3d.

Jewel House of Nature, and Art. By Sir *Hugh Platt*.

Adam's Art reviv'd. By the same Author.

Of the Improvement of barren Land. By *T. G.*

*Dictionary Rusticum, &c.*

*Googe*, of Husbandry.

*Blith's* English Improver.

Improver improv'd. By the same Author.

*Houghton's* Letters of Husbandry and Trade.

A Discovery of Hidden Treasure. By *Geo. Plats*.

These, or such of them, as you can most readily procure, (for some of these are very scarce) will give

give the utmost Knowledge requisite, for as large Improvement, as in any of the foregoing Precedents.

But I hasten to my own particular Task, and will undertake to prove, that every private Gentleman in *England* may, by taking his Lands into his own Management, advance his Estate, immediately, to a *double* Value, and *That*, without the Trouble of seeking much Knowledge, or making new Improvements; even, by the downright *common* Road of Husbandry, as it is now practised.

And here it will be no Objection to tell me, *Gentlemen* are wholly ignorant in these Affairs, and that we see, by general Experience, that Men, who do take Lands into their own Hands, are always Losers by the Bargain.—I deny the Observation; or, if it were, it makes nothing against my Argument: For they, who, having Farms thrown up by their Tenants, leave the Cultivation of them to their *Stewards*, taking such Accounts, as *They* think fit to give them, may well be Losers by the Bargain; and yet This is what we call keeping Land in our own Hands.

But, previous to my Argument, I observe, that, though 'tis not necessary for a Man, who would double his Rents, to be much skilled in Husbandry, we must, at least, suppose him a Person of good Understanding in common Matters, and of an industrious Disposition; one, who will allow, that so considerable an Augmentation of his Estate deserves six Months Continuance in the Country.

Suppose we then a Gentleman, so qualified, and so disposed, has a Farm thrown into his Hands, at *Lady Day*, which contains, of Arable Land, a hundred Acres:—He is, just about this Time, come down to pass the Summer, at his Country House; and, when his Steward tells him, that, no new Tenant offering to take his Farm, it will be



best to sow it on his own Account, how easy would it be to send for others of his Tenants, and, in order to determine which Way to proceed; ask these Kind of Questions.

I have an Inclination to *till* the Farm, which is newly quitted ; — *Is it in a good Condition?*

They will tell him — *No* — That it has been Plow'd so long, till the Heart of the Ground is worn away ; and that it will require new *making*, as they call it, that is *Manuring*, before it can be fit to bear any Kind of Grain to Advantage.

*What is the fittest Manure for the Nature of the Ground?*

The Answer will be, *good Dung*.

*How much on an Acre?*

About twenty Load.

*What will it cost a Load?*

About twelve Pence.

*What Grain will it bear after this Charge?*

Wheat.

*Is the Season proper?*

Yes ; we sow Wheat in *September*, or *October*, and there is Time enough to prepare the Ground between this, and then.

*Pray let me know the whole Charge of an Acre of Wheat?*

Why, the Ground, being already in Tillage, will require, besides the Dinging, *two Plowings* only, and each Plowing will be four Shillings an Acre : The *Seed* will be two Bushels to an Acre, which, at five Shillings a Bushel, comes to ten Shillings more : Then there is *Weeding* and *Reaping*, and *Binding*, will be about five Shillings more : Then *Inning* of Harvest, and repairing of Fences, may be five or six Shillings : And as for *Thrashing*, the Charge of that may be, according as the Crop proves.

*How so?*

Because

Because we pay the Thrashers for Wheat, after the Rate of threepence a Bushel.

*How many Bushels have you commonly on an Acre ?*

Why, that is just according as it happens, sometimes more, and sometimes less : I have known four or five Quarters upon an Acre ; and, at other Times, I have reaped but two Quarters ; but upon new made Lands, we generally reckon *thirty Bushels* a middling Crop.

*But am I to dung my Ground every Year ?*

No——once Dinging will hold out three Crops.

*May all these Crops be Wheat ?*

No :——That would not be proper ;——The *first* should be Wheat, the *next* may be Barley, and *third* Pease.

*What are the different Values of these Crops ?*

Why, we generally reckon a Wheat Crop, as I said, about thirty Bushels ; and truly Pease, and Barley, as many, or sometimes, a pretty deal more.

*Are the Charges of the Barley, and Pease Crops, the same as the Wheat, only bating the Dung ?*

No : very different : In the Barley, which is mowed, instead of reaping, you save by That, and other Things, about seven Shillings an Acre ; and Pease, being cheaper in the Seed, and requiring to have the Ground but once Plowed, will stand you in less, than the Wheat Crop, by above thirteen Shillings an Acre, besides the Charge of your Dung saved.

It must be allowed me, that all these are Questions which any Gentleman may have Wit enough to ask ; and, if That be granted, I am sure, the Answers he must receive, will make much better for my Argument, than those I have set down : For, I have purposely enlarged the Charges, and diminished the Crops, even in the *common* way of reckoning ; as any Body may know, who will give himself the Trouble of an Enquiry.

Well then ; The Use, which any *thinking* Man would make of these Informations, would be this : He would presently go into his Study, and, writing down the several Particulars, compute the *Expence*, and compare it with the *Income* ; which Account would stand thus.

### Expence of an Acre for the three Crops.

Twenty Load of Dung, at 1 s.	l. s. d.
a Load - - -	1 00 0
Two Plowings, Each 4 s. for the Wheat - - -	0 08 0
Two Bushels of Seed Wheat, at 5 s. Each - - -	0 10 0
Weeding, Reaping, and the Binding Wheat - - -	0 05 0
Inning the Wheat, repairing Fences, &c. - - -	0 06 0
Thrashing the Wheat - - -	0 07 6
The whole Charge of the Barley Crop, being less, than the Wheat, besides the Dung- ing, by seven Shillings -	1 11 6
The whole Charge of the Pease Crop, being less, than the Wheat, by thirteen Shillings -	1 05 6
Total Expence	<hr/> 5 13 6 <hr/>

### Income of an Acre, by three Crops.

Thirty Bushels of Wheat, at 5 s.	
a Bushel - - -	7 10 0
Thirty Bushels of Barley, at 2 s. 6 d. - - -	3 15 0
	Thirty



Thirty Bushels of Pease, at

3 s. 6 d.

5 05 0

The Straw of the three Crops,  
tho' but to burn, will be  
worth

0 15 0

---

Total Income 17 15 0

---

By this Computation, he would perceive, that, even according to the Countrymen's own Way of reckoning, the Profit would be more than three Times the Charge ; so that, supposing his former Rent to have been so much as one third, his present Charge would be but another, and, it therefore plainly appears, that, in this beaten Road of Husbandry, the Revenue of his Farm will be more than doubled.

But I need not have taken so much Pains to inculcate a Truth, which the Farmers themselves are always ready to confess ; allowing it for a general Maxim, that *a good Farm must yearly make three Rents*, the first for the *Landlord*, the second for *Charges*, and the third for the *Tenant* and his *Family*. And, indeed, if this were not so, the Renters of Land must starve, or pay Nothing.—Let it, therefore, only be allowed me, that the same Workmen, at the same Charge, can do that for a *Gentleman*, which they do for a *Clown*, and you prove this Position, for yourselves, to the direct doubling the Value of your Estates.

I might also hint the great Advantages, which most Gentlemen have of common Farmers, as to the expensive Part of this Work ;—The Dung, the Horses, and the Workmen : And what Gentleman, of any Note in *England*, who has not, or who might not have, all these at Call, without the least additional Charge to his common Household Expences ?

If any Body will continue to oppose the weak, old Argument against me, of *Every Man in his own Way*, and that there are *certain Secrets in the Practice of this Art*, which the Farmers keep among themselves; and which Gentlemen, or those they employ, must be ignorant of, and, of Consequence, miscarry; I content myself to answer, once for all, that this Objection is so far from being just, that it deserves no further Notice.

The foregoing Plan, for three Years Tillage, though exactly suited to the *common Road*, is very far from being recommended as a Pattern; 'tis the *least Improvement* you can make of Land, and the worst Way of making it into the Bargain. It is only introduced to shew how easy it is for any Man to be instructed in the Farmer's whole Treasury of Knowledge: For all, beyond that little Store, is *Terra incognita* to the deepest of their Discoveries.

Some Gentlemen may think it too much Pains, and Trouble, to attend a three Years Issue of their Labour, which is, also, *then* to be repeated, if they would keep up their Advantage. I shall not advise such Persons to commit the Management of the Affair to Deputies, tho' never so much esteemed, and faithful. — Indeed, the toilsome Part, and the continual Application requisite, may well admit of an honest Servant's Attendance; but the frequent Inspection, Reproof, and Encouragement of the Master himself will be absolutely necessary. And 'tis no ill Doctrine, we are taught by a plain Country Proverb, which tells us, that the *best Dung in the World is the Master's Foot*.

But there are many Men, whose Genius cannot hit the Relish of our Country Employments: These seldom enter *Corn Fields*, but through the *Hedges*; nor would know the Name of *Stubble*, but for the Game it shelters: Such, as these, are kept

kept back, by Nature, from an Application to Improvement, and will not consider, that the frequent Intervals of Business and Pleasure heighten and encrease the Satisfaction of each other. There are some again, who, though they could, with much Delight, pursue the Practice, are deprived, by other Calls, of Leisure to attend it.

There are many Ways, whereby these Gentlemen may, notwithstanding this, improve their Rents, at once indulging both their Inclination and their Profit; and that not out of the common Road neither.—I could demonstrate This by many Instances, but will confine myself to one Proof only; supposing that, when Men are once convinced a Thing is to be done, they will readily bestow a little Thought upon the wisest Method of performing it.

I will put such a Gentleman into the same Condition with the former; He has a Farm of a hundred Acres, thrown into his Hands at *Lady Day*: The Heart of the Ground has been plowed out, by a malicious, or an indigent Tenant: The Badness of his Land invites no Bidder, till, perhaps, towards *Michaelmas*, some monied Neighbour, to take Advantage of this Circumstance, bids a Crown an Acre; the Gentleman had lett it before for ten Shillings, and is, therefore, unwilling to have it go, at a half Rent, but the other will give no more: The Owner can make nothing of the Land himself, and, after the Loss of a Year's Rent, the Farm is lett for five and twenty Pound per Annum, which, till then, had always gone, at fifty.

This is the very Cause of many a Gentleman in every Part of this Kingdom. I have known a Plot laid, by a Dozen rich Farmers in a Neighbourhood, to pull down a Plume, as they call it: And, tho' the Abatement is not always so monstrous, as we suppose it here, yet by a little *this*  
Year,



*Year*, and a little *next*, it generally comes to one, and the same Conclusion.

Now had this Gentleman, among all his Amusements, but just found Leisure to inform himself, that ten Shillings Worth of Dung, upon an Acre, would qualify his Land for *St. Foyn* or *Clover* ; and that the whole Charge of such an Improvement would scarce exceed the Year's old Rent of his Ground, he would certainly sow one of those Grasses, according to the Nature of the Soil ; and if he did, without any further Charge or Trouble, he would have Offers enough : And the very Man, who, were his Land neglected, would have had it, at five and twenty Pound a Year, will now be glad to come in, upon this Improvement at *Michaelmas Day*, and give him two Hundred.

'Tis true, I have often known *Clover*, and *St. Foyn*, make little Improvement ; but the Ground has neither been rightly prepared, nor the Seed well chosen, or well sown. 'Tis a standing Custom among Countrymen to sow *Clover* with *Oats*, or some other *Grain* ; And this they do, for the Advantage of a poor Crop the first Summer, before the Grass is come to Perfection : But they are ignorant, that, by this Means, the *Clover* can never cover the Face of the Ground, but, growing thin, and here and there, in Tufts and Parcels, the natural Children of the Field, Weeds, common Grass and Trumpery, prevail against it, and, in a Year or two, after the first, it is quite choaked, and comes to Nothing.

But I have done with this Particular, and hasten to direct, not a new Husbandry, but a new Method of Husbandry.—I speak now to such, as are willing to improve their Estates, but ignorant in the Means of doing it.—I design not to advise the Propagation of *Woad*, *Madder*, *Saffron*, *Liquorice*, *Hops*, *Safflower*, *Rape-seed*, or other Plants

of this Nature. — A general Application to Agriculture would suddenly discover, and pursue the vast Advantages, accruing from so desirable an Industry. But as I have said a Word or two of the *common Paths* in *common Husbandry*, so I will demonstrate by what Means any Gentleman, who would set about the same Work, in an *uncommon Manner*, may proceed to a very great Enlargement of his Fortune, by the Grains, in general Use amongst us, such as *Barley, Pease, Wheat, Beans, Rye, Oats*, and such like Things, which have a Use in every Part, and find a Vent in every Market.

I will not insist upon a frugal Method, which might very decently, as well as profitably, be introduced, of keeping the same Horses for our *Teams*, which we maintain for our *Coaches*, and the same Servants for our *Labour*, which we make use of for our *Vanity*. I know, the fine, unthinking Part of Mankind are apt to turn this wise Frugality into Ridicule, and expose it, as an Act of Avarice, or want of Relish in the politer scenes of Life : But, when I address myself to the *prudent* Man, I may venture to tell him, that, in my Opinion, the honest, brisk Fellow, who drives my Plow, in an old, dirty Coat, may as well become my Coach-Box in a good Livery ; and that I may look for faithful Service and Obedience, with far less Danger of a Disappointment among such poor Men's Children, whom I educate at once to Labour and Attendance, than from a Crew of idle Dissolutes, who, measuring a Master's Goodness, by his Easiness or his Extravagance, are contented in my Family no longer, than I can resolve to wink, and let them cheat me.

However, let the Gay indulge their Vanities : 'Tis but resting satisfied with an Estate, by so much lower than their Neighbours of another Temper,

as their Equipage appears above him. If they but encrease their Fortune, 'tis an Insolence to question how they use it ; and the Industry, required in this Way of getting, is thus far less irksome, than in any of the usual Paths of Life, that you may take your Swing of Pleasure, and yet fear no Ruin : *London*, and her various Amusements, may engross your *Winters*, while your *Summers* are devoted to your Country Tasks, not less adorned with Beauties and Temptations, though of another Nature.

I must here look back upon the Owner of those hundred Acres, which I supposed thrown into his Hands, and tempting his Endeavours to improve their Value. This Gentleman, pursuing the Advice of his Tenants, lays twenty Load of Dung upon an Acre, and sows Wheat for the first Crop.— His Expences stand thus.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Dunging an 100 Acres, with 20			
Load to an Acre, each Load 1 s. -	100	00	0
Twice plowing each Acre, at 4 s.			
each Plowing - - - - -	40	00	0
Ten Shillings an Acre for the			
Seed Wheat - - - - -	50	00	0
Weeding, Reaping, Binding, at			
5 s. an Acre - - - - -	25	00	0
Repairing Fences, Inning Harvest,			
&c. at 6 s. an Acre - - -	30	00	0
Thrashing the Corn, at 7 s. 6 d.			
an Acre - - - - -	37	10	0
	<hr/>		
	282	10	0
	<hr/>		

Now, Nothing can be more demonstrable, than that this Gentleman, in laying out two hundred, and fourscore Pounds, spends sixty at least, more than



than is needful ; for one hundred Acres is no more than two Oxen can very well manage, and the Team may be guided by one Man : I know, I am out of the common Road, but no Matter ; what I say has been proved on the heaviest Land, in *England*.--- A good Yoke of Oxen will cost him about eight Pound, and require three Pounds worth of Hay, to help out their Grass-feedings ; --- A Plow, Harness, and the necessary Furniture of a Team, with other Tools and Instruments, the Man may want, will be three Pound more : The Wages of this Man may be five Pound a Year, and his Meat and Drink, tho' a very Trifle in a Gentleman's Family in the Country, we will reckon six Pounds more. All this amounts to but five and twenty Pounds ; and, for this Charge, the Owner of the Ground will save thirty or forty Pound, in the carrying out his Dung ; fifteen in the two Plowings, and, in the Fencing Weeding, Reaping, Thrashing, and other Charges, at least so much more, as amounts to the Sum abovementioned.

I will now undertake to demonstrate, how any Gentleman in *England*, whose Estate is mortgaged, though for above half its Value, may clear the Debt, by the first Year's Improvement, and, at the same Time, raise the Rents to thrice their present Income. I am sensible, there is a very material Difference in the Situation and Condition of Lands, but I will obviate that Objection, by making Choice of the most *ordinary* Sort, supposing it will be readily allowed, that what the Worst can do at all, the Best can do more easily.

Let the supposed Estate be a thousand Pound a Year, and mortgaged for ten thousand Pound, and suppose it too, at six per Cent. the Interest of this is six hundred Pound a Year ; and which is, indeed, a very great Hardship, the Person, who thus receives the best half of the Estate, receives it *Scot-free*

as their Equipage appears above him. If they but encrease their Fortune, 'tis an Insolence to question how they use it ; and the Industry, required in this Way of getting, is thus far less irksome, than in any of the usual Paths of Life, that you may take your Swing of Pleasure, and yet fear no Ruin : *London*, and her various Amusements, may engross your *Winters*, while your *Summers* are devoted to your Country Tasks, not less adorned with Beauties and Temptations, though of another Nature.

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*free*, as the Proverb says, while He, who pays away the largest Part of his Subsistence, pays Taxes for that very Payment ; and 'tis well, if two hundred Pound a Year excuses him ; so that the poor Gentleman, who passes for the Owner of a thousand Pound per Annum, and must live, and educate his Children accordingly, does, in Reality, receive scarce two Tenths of the Estate, for his own Share.

In this Condition, what shall he do ? He is already a *Husband*, and a *Father* ; He cannot, therefore, hope a Remedy from the common Practice of tying one Knot to untye another ; he is unqualified for Court Attendance, or, perhaps, too wise to risque his Ruin in a Disappointment. He cannot *buy* a profitable Post, and wants an Interest to get one *given* him : What Course shall he take ? To continue, as he is, were mean and miserable--- And how to better his Condition, He is wholly ignorant.

At last, it enters his Imagination, that his Land may be improved, if he had it in his own Hands : He computes the Charge, but knows not how to get so large a Sum together : However, he tries the Force of his Credit in every Place, he can expect Success from : He obtains as much as he can by this means, upon the best Security he can make ; his Friends assist him with a little more, and when he finds, he has a Prospect of becoming able to go through with the Design, he warns his Tenants out, and puts himself in Readiness.

If this prudent Resolution be accompanied with a Skill sufficient, he will first consider the Quantity of Land he is about to undertake, and what different Operations will be requisite, for the different Natures of his Soil. But I will suppose it all alike, and all of the worst Sort ; such as having been let to Tillage, and occupied by Tenants at will, at about five Shillings an Acre, has been only qualified

by lying fallow one Year, to bear a poor Crop the next ; and, by this Account, the whole will consist of four thousand Acres.

The great, and most necessary Consideration, here will be, what Kind of *Manure*, and what Quantity of it must be used, as also how to find it. He is skilled in the Knowledge, which will be taught you by and by, in the Discourse of *Soils* and *Composts*, and needs not, therefore, be informed, that so large a Space of Ground must yield, in several Places, Plenty enough for Digging——(mark this single Advantage of Skill ; A Man, who knew it not, must buy Dung, and that Charge only would make two, or three thousand Pound odds, in his Reckoning.) Let us imagine then, for the further Demonstration of this Argument, that *Marle*, because that Manure is by much the most costly to lay on, is what he finds, and resolves to use, after the Rate of a hundred Load upon an Acre.

For every hundred Acres he must provide a Team of two Oxen, and a Plowman to turn up the Ground twice ; once before the Marle is laid on, and once after : This Man, by the Use of a Plow hereafter described, can manage two Acres a Day, so that reckoning two hundred Working Days between *Lady Day* and the End of *October*, he will have Time to spread the Marle in an Afternoon, which is brought on in the Morning, and to Harrow the Ground he has Plowed, sow the Seed, and to do all that depends upon this Part of the Labour.

Besides this, there must be, for every hundred Acres, two Drivers, two Teams, of three Oxen, each : Three Carts, to carry Marle ; and a Digger, at the Pitt, who fills one Cart, while the Teams are drawing the others to the Place of Delivery : This Filler, by the Assistance of the Drivers, can

easily send out fifty Load a Day, or more, were it requisite : But that is the exact Number necessary to compleat the Task, in the Time above limited.

When the Ground is thus enriched by *Marle*, or any other good Manure, he will sow *Wheat*, and the whole Expence will be as follows.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Eighteen Months Wages to 40			
Plowmen, each 5 <i>l.</i> per Annum	300	0	0
The prime Cost of 40 Teams, 2			
Oxen in each - - -	320	0	0
For Plows, and Harness, &c. for			
these Teams - - -	100	0	0
For 120 Carts, Spades, Tools,			
and other Utensils - - -	400	0	0
Eighteen Months Maintenance for			
the 40 Plowmen - - -	300	0	0
Six Months Wages to 120 Drivers			
and Diggers of Marle - - -	300	0	0
Six Months Maintenance for the			
same - - - - -	300	0	0
For the prime Cost of 80 Teams			
of Oxen, Three in a Team - -	960	0	0
Additional Expences, which may			
casually arise from such a new			
Number of Dependants - - -	150	0	0
For eight thousand Bushels of			
Seed Wheat - - - - -	2000	0	0
	<hr/>		
Total Expence	5130	0	0
	<hr/>		

If any Body objects, that this is not the whole Expence, because the Charges of Reaping, Thrashing, &c. are not included, I answer, that the *Autumn* before this Work is begun, the Owner of the Land should chuse about forty, or fifty Acres of good Ground, whether his own, or to be rented ;  
and,



and, breaking it up, and burning, as hereafter is described, sow it with the Seed of right *Flanders Clover* : This will grow up against Spring, to a full Capacity of serving all his Cattle the whole Summer ; And, when the Marling Teams have done their Work, they may be fed up, upon the Clover, till they are fit for Slaughter, and sold for at least fifteen hundred Pounds, tho' their prime Cost was not two Thirds of the Money : And this additional Sum will be more than sufficient for all the objected Expences of the Harveſt.

I have reckoned this Charge by much at the largeſt, and I choſe to do ſo, to prevent the Cavils of the ſlothful, or conceited.—There are Methods, which are daily practiſed, whereby a Man might ſave by much the largeſt Half ; but this would gain Belief with ſo much Difficulty, that I ſtudiously avoid any more, than the bare Mention of a Thing ſo ſeldom heard of.

Well ! the Labour and the Charge is over : Let us get in Harveſt.—'Tis done ; the Wheat is thrashed, and what do you imagine is the Product of an Acre ?——You would think me mad, to talk of five and twenty Pound, ſo I forbear what *may* be, and ſince I am driven to plain what *muſt* be, will content myſelf to take the *odd five* only. This no Man alive dares contradict ; and even by this Calculation, the Produce of the four thouſand Acres will be ſold for twenty thouſand Pound. The Mortgage is paid ; the Money borrowed for this Work is joyfully returned ; the Gentleman has two, or three thouſand Pound in his Pocket, and his Ground is ſo much bettered by the Marle upon it, that if he is not tempted by the Iſſue of his firſt Endeavour, to keep it under his own Management, he may let it out, and chuſe his his Tenants ; and his Thouſand Pound a Year will certainly be three, or four Thouſand, from that Day forwards.

But, because the Nature of Things is best known by Comparison, I will give you the Copy of a Letter which was sent to a Friend of mine, by a Gentleman, to whom he had communicated a Design of endeavouring to improve his Estate ; and which proved the happy Means of rivetting his Resolution.

‘ S I R,

‘ I received yours a Week later than you may  
 ‘ have imagined, which was occasioned by an ac-  
 ‘ cidental Journey to my Sister B———s ; I had  
 ‘ otherwise made no Delay in answering, and the  
 ‘ rather, because the Subject of your Letter pleases  
 ‘ me. It would rejoice your Father’s Heart, could  
 ‘ he revisit Life, to see you begin so early to grow  
 ‘ wise. God has given you a strong and health-  
 ‘ ful Body, and a Mind unimpair’d by the In-  
 ‘ fluence of Age, or Sickness : These were Bless-  
 ‘ ings your good Father wanted ; and he has often  
 ‘ lamented the Misfortune to me, because it ren-  
 ‘ dered him unable to improve an Estate, which  
 ‘ he was grieved to think must descend to a Son,  
 ‘ so much beloved, with a Clogg, which, he was  
 ‘ afraid, would hinder you from its Enjoyment.

‘ I am well pleased to hear, that your Uncle  
 ‘ G——is so good natured, to consent to do as  
 ‘ you inform me. You should have found the same  
 ‘ Compliance in me, rather than I would have seen  
 ‘ so excellent a Design overthrown, for Want of  
 ‘ Power to finish it ; and pray take a Friend’s  
 ‘ Privilege to assign me my Part, in the Further-  
 ‘ ance of your Endeavours.

‘ And, whereas you ask my Counsel in the Mat-  
 ‘ ter, I give it very gladly, and with great Sin-  
 ‘ cerity ; put your Hand to the Plow, and draw  
 ‘ it not back, because your Measures are the won-  
 ‘ der

' der of your Neighbours. No Man had more of  
 ' That, than I, when I begun this Way. Indeed  
 ' you are better armed against Remark, and Ri-  
 ' dicule : I had no Land of my own to improve,  
 ' and a forry Stock, God knows, to set me for-  
 ' ward.---Your Father has oft heard me own, and  
 ' I am far from being ashamed to confess it pub-  
 ' licly, that two hundred Pounds was all, which  
 ' had been saved me from the Wreck of a very  
 ' considerable Fortune : But my Genius always led  
 ' me to a Desire of being settled in a Country  
 ' Way ; and a Book of Mr. *Hartlib's*, called the  
 ' *Legacy of Husbandry*, (which Book, by the by, I  
 ' would advise you to read,) had possessed me with  
 ' a Notion, that great Things were to be done in  
 ' that Way ; but the Practice of the Law, to which  
 ' I had been educated, and by which I made a  
 ' Shift to eat and drink, three Pair of Stairs high  
 ' in Lyons Inn, allowed no Leisure, or Ability,  
 ' to put my Inclination to the Trial of Experience.  
 ' But, at last, when it pleased God, my Mother  
 ' died, and the two hundred Pound, a Sum the  
 ' Profits of the Law had never shewn me, as little  
 ' as it was, became my own, I made a Resolution  
 ' to pursue my Wishes.

' I took a little Farm of twenty Pound a Year,  
 ' and became Master of a Man, a Maid, and a  
 ' poor Beast, or two, which was all my Family ;  
 ' I had like to have spoiled all, by venturing too  
 ' far at first, but with much ado my Stock held  
 ' out, and, when I cast up my Account at the  
 ' Year's End, I found all Charges paid, and about  
 ' five hundred Pound in my Pocket.

' My Cottage was now become too narrow for  
 ' my Ambition, and I began to form strange  
 ' Schemes of growing, in Time, to be a mighty  
 ' Man. I think, it was *Cæsar* who used to say,  
 ' He would not entertain a common Soldier in his



‘ Army, who did not absolutely hope to see himself a *General*. And I assure you, that a worthy Manner of *aspiring* even among us *Rusticks* is the surest Tie upon our Diligence and Industry ; we pursue a Labour with a double Eagerness, when it offers pleasing Prospects to our Hope, and cannot easily be tired, if we always keep in View the point of Happiness, we aim at reaching.

‘ But I wander from my little Farm, which I exchanged for one of fifty Pound a Year, and which contained about two hundred Acres. I made my augmented Stock hold out to fit the Ground for bearing Wheat ; and this Year, I cleared above twenty Pound an Acre, to my own Amazement at the unexpected good Fortune, and the Rage and Envy of my Neighbours, who had bantered my new Methods of proceeding, and could not bear to see the Jest, thus, turned upon them.

‘ I now looked upon myself, as a *made Man*, and, having jumped as it were at once into plenty, I resolved to pursue the Game at all Advantages ; I encreased my Quantity of Land in Proportion to my Stock, which I more than *doubled*, in a Year so very hurtful and unseasonable, that it ruined many Farmers of considerable Substance, who had not so much Skill, or so much Luck, as myself.

‘ By this Time I began to think of marrying, for I found myself in a Condition to admit of chusing Merit without Money ; But I had the good Fortune in my old Girl, who, by the Way, is much your humble Servant, to meet with an admirable Mixture of both these Blessings. And I now, thank God, improve an Estate of my own ; and, in all the Practice of my Life, have had such Proofs of an infallible Reward of Industry,

‘ dustry, in this honest Way, that I cannot help  
 ‘ rejoicing, in a more than ordinary Manner, to see  
 ‘ the Child of my Friend so likely to be made,  
 ‘ at once, a *good Man*, and a rich Man.

‘ I would answer all your Queries in particular,  
 ‘ but have writ so much already, that I have no  
 ‘ Room. And your little Wife says, if you want  
 ‘ a Letter from her Father, you may come your-  
 ‘ self, and fetch it : I expect to see you here ; you  
 ‘ know you are always welcome ; and, against you  
 ‘ come, I will prepare a Paper of Directions, which  
 ‘ you may, hereafter, have Occasion to thank me  
 ‘ for.’ I am, &c.

I have inserted this Letter, as a Proof, that what I am advising has been found very possible ; and indeed, if Men would suffer themselves to be convinced, either by Reason or Experience, they would meet in their Pursuit of Wealth, this Way, no Obstacle, but Sloth, between their Aim and their Accomplishment.

Now, because I would leave Nothing unsaid, which may be serviceable in the Practice of what I am recommending, I will, as briefly as is possible, describe the proper Manner of Proceeding, not as *is* done, but as *should* be done by skilful Undertakers. I shall not lead you thro’ a Field of Intricacies, and distract your Imagination with a Croud of Precepts. The utmost Knowledge, necessary to the End I have proposed, may lie in a very little Room, and I will endeavour to give it, at one View, as nearly as I can.

I begin with *Manure*, that necessary Help to Vegetation, and *primum Mobile* of all Improvements.—There are many excellent Kinds, such as *Shavings of Horn*, *Choppings of Rags*, the *Comings or Dust of Malt Heaps*, *Pigeon’s Dung*, *Soap Ashes*, *Lime*, and others : All which are wide of my Pur-

pose, because they must be *purchased*. I therefore only mention them, and pass them by, to treat of such, as, being every Way superior to them in their Operation, are also to be had at no other Expence, than that of *Carting*. These are *Marle*, *Chalk*, *Fullers-Earth*, *Clay*, *Sheeps-Dung*, *Sea-owse*, *River-mud*, *Sea-sand*, and *Sea-weed*.

It is to me a surprizing Proof of our Gentlemen's Inaptitude to this noble Art, to see so many hundred thousand Acres pestered and corrupted by *common Dung*, the Bowels of which very Land are loaded with inexhaustible Quantities, of rich and wholesome Physick, for its own Diseases. *Dung* is not only prejudicial to *some* Soils, but inferior to the worst of other Composts upon *any*. One would wonder to see, how People put themselves to extraordinary Charges, and the Inconvenience of sending to great Distances for *Lime* or *Horse Dung*, to manure those very Lands, which never fail of being verged, or bottomed by a Substance, of one Kind or other, by far more proper for the End, they aim at: And, therefore, I lay it down as a Rule, almost without Exception, that as every *Climate* is supposed to produce naturally, were the Virtues of all Simples known, unquestionable Cures for the Diseases it is subject to, so every *Soil*, of what Nature, Situation, or Condition so ever, abounds with natural and sufficient *Helps* for its peculiar *Imperfections*.

The only Difficulty is, how this Treasure shall be discovered and applied, and I will make both these alike easy to your Practice.—I begin with *Marle*.

There are many different Kinds and Colours, severally distinguished by many Writers; but their Virtue is the same; and they may all be used upon the same Ground, without the smallest Difference in their Effect.—I have seen nine several  
Sorts,



Sorts, within a very small Compass of one Gentleman's Lands, and am pretty sure, there are few Vallies, Sides of Rivers, or hanging Grounds in *England*, but abound in one, or more Kinds of this incomparable *Manure*.

In many Places, it discovers itself to the most negligent Eye ; especially, upon the Sides of broken Hills, or deep hollow Roads, as you travel through most Counties in the Kingdom.—The *Thames* possesses an inconceivable Treasure, on both her Sides, which is plundered, more or less, by every Tide, and may be seen, as you pass in Boats along her Banks, both above, and below *London*. — *Boggy Lands* frequently cover it, and, in such, it seldom lies above three Foot deep ; 'tis somewhat lower, under stiff Clays, and *marshy level Grounds* : Most *Sandy Lands* abound in it, in their lowest Places, at sometimes three foot Depth, and sometimes seven or nine, and I have known it deeper. As for the *Marle* itself, 'tis seldom you can find its Depth, for, when the upper Crust of the Earth is once removed, all you can see, or dig, is *Marle*, and I could never yet see any Pit exhausted.

There is nothing more common, in most Places, than to find the Ditches, which enclose a Field, dug down so deep, that they have penetrated, six or seven Inches, into a Bed of *Marle* that lies under them, without knowing any Thing of the Matter, tho' the prodigious Shooting, and Encrease of the Grass, which is put forth by the *Marle*, thrown up upon the Sides of the Bank, might, one would think, be a Means of discovering it ; for, tho' the Dryness of such Banks, in other Places, do not only make them unfit for bearing kindly Grass, Grass, but apt to moulder down in Summer, and wash away with Winter Rains, yet, where the *Marle* is thus, by Accident, disclosed, it does not  
only

only turf the Sides and Tops of the Banks, and so secure it against all Injuries of Weather, but causes the Grass to grow to such surprizing Length, and Thickness, that, being beaten down by Winds, it hangs along, as if it *thatched* the Earth, which nourished it, and carries off the Rain, without permitting any considerable Quantity to enter thro' it.

The Colour is, either *red, brown, yellow, blue, grey, or mixed*; it is to be known by its pure, and uncompounded Nature; there are many Marks to distinguish it by; such as its breaking into little square Bits; its falling easily to Pieces, by the Force of a Blow, or, upon being exposed to the Sun, and the Frost; its feeling fat, and oily, and shining when 'tis dry.—But the most unerring Way to judge of *Marle*, and know it from any other Substance, which may appear like it, is, to break a Piece, as big as a large Nutmeg, and, when 'tis quite dry, drop it to the Bottom of a Glass of clear Water; where, if it be right, it will dissolve and crumble, as it were to Dust, in a very little Time, shooting up many Sparkles to the Surface of the Water.

Would you learn a very easy, and infallible Method of discovering, whether there is any *Marle* in Places, you imagine it may lie under?—Order a *Smith* to make three *Iron Augers*, of near an Inch Diameter, and to each, affix an Iron Handle, crosswise; let the Bitts of these Augers be made pretty large, and tenacious of what they pierce; the first may be *three* Foot long, the second *Six*, and the third *Ten*. When you would try the Place you have Hopes from, carry thither these Augers, and cause a Servant to take the first, and wring it into the Earth, by twisting at each End of the Handle, he must draw it out as often, as it has pierced a new Depth of six Inches, to cleanse and examine the *Bitt*, and observe, what he draws up  
in

in it.—If you find Nothing but common Earth, within the reach of this first Auger, let him thrust the second down the *Hole*, which was made by the former, and proceed in the same Manner, till he has wrung This, also, up to its Handle; and then let him do the same by the third Auger, always remembering, that he examines the Auger *Bitt*, after each new Progress of six Inches.

By this Means you will, undoubtedly, and without Charge or Hazard, discover not only what *Marle* lies under your *Soil*, but whether any other Thing of Value, such as *Chalk*, *Coals*, *Fullers Earth*, or *Quarries of Stone*, many of which lie now concealed, and unthought of, in Places, where their Value, was it known, is ten Times more than that of the whole Estate, which covers them; and here, I can't help telling you a Story, which, tho' it may look like a Digression, makes much for my present Purpose.

A *Dutch Ship* was cast away upon the Coast of *Norfolk*; nothing was saved, either of the Vessel, or her Crew, but one poor Sailor, who had made a Shift to get ashore upon some Member of the Wreck, and crawled along, half dead with Cold, and the Fatigue of his Deliverance, to the House of a *Farmer*, who lived not far from the Sea Side. It was in the Heat of the War between Us and *Holland*, and the good Man of the House, understanding that he was a *Dutchman*, imagined, 'twould be little less than high Treason to entertain him; by which Means the poor Fellow, going on, in Hopes of better Fortune, was reduced to the Necessity of taking up a good warm *Coat*, which he found upon a Gate, as he went along, and withdrew to a little *Copse*, with design to shift, and dry his old Cloaths, and then to leave the Coat in the Place where he found it. The Owner of this unlucky Garment was a *Ditcher*, who, being at Work on the



the other Side the Hedge, had observed this Passage, and, pursuing the *Sailor*, overtook him, before he got to the Copse ; and, not being able to understand his Excuses, for want of Skill in his Language, would needs carry him before a *Justice*, who lived hard by : The Justice had Knowledge enough in the *Dutch* Tongue, to unriddle the whole Affair ; took Pity on the poor Man, and, putting him to Bed in his own House, gave him a Suit of Cloaths, the next Day, and was preparing to send him to a Place, where many of his *Countrymen* were Prisoners, expecting daily their Freedom. In the mean while, understanding that he had Skill in *Draining*, he carried him one Morning into a Field, in which he had begun a Work of that Nature. The *Dutchman* perceived a whitish Kind of Earth, which had been cast out of one of the Trenches, and examined it with more than ordinary Earnestness. The *Justice* asked him, if it were of any valuable use in *Holland* ? The *Sailor* answered, that it was sold in his Country, at an extraordinary Rate ; that it came to *Delft*, and other Places, down the *Rhine*, from a little Village about twenty Miles above *Frankfort*, and was used for making the finest Sort of *Earthen Ware*. The Justice upon the Information thus accidentally given him, immediately, after Conclusion of the Peace, sent a Person to *Holland* with a *Sample*, and, finding the Matter exactly, as it had been represented by his Shipwreck'd Guest, became a Merchant unexpectedly, by this Product of his own Land, and sold so much, in a few Years space, as brought him in ten thousand Pound Profit ; but the Stock was then exhausted ; and he could discover no more, in any Part of his Estate, tho' he earnestly endeavoured it.

But I return to my *Marle-Pitt* ; and have only to add, that there is, now and then, an Inconvenience

niency attending such who dig too deep in level Lands, inclinable to Wetness in the Winter ; for the *Springs* will, sometimes, break in upon your Pit, and much encrease the Labour of your Workmen, and your own Expences. There are little Engines to be made, which, turning in a semicircular Frame, will catch the Wind at every Point, and, by the Force of their Motion, pump up mighty Quantities of Water, and, by that Means, ease this Inconvenience, which, however, had much better be prevented ; and that may infallibly be done, by working *Wide* and *Shallow*, in such Places, as you suspect to be watry.

I come next to *Chalk*, which, though not so general as *Marle*, is yet very easy to be found, in many Places, where 'tis never sought for. This is a Thing so universally known, that I need not go about to describe it ; only, as it is the *Heart* of many Hills, in *England*, whose *Surfaces* discover Nothing like it, I would advise a diligent Search for *This*, where *Marle* is wanting. The Augers will be, here, as necessary, as before ; the Places, to be pierced, are only *Tops* and *Sides* of Hills. If you succeed, you need not dig a *Mine*, in the laborious Manner, which is commonly practised ; the following Method is a cheaper, and far more expeditious Way.

Pretty near the *Top* of the Hill, (more or less so, as the Hill is high, or low) you must make your Workmen cut a deep Hollow into the Side, as if they would undermine it ; which having done, they must, upon the *very Top* of the Hill, dig a deep, narrow Trench, as directly over the inmost Part of the Hollow below, as they can possibly : This Trench they must contrive to fill with Water, by cutting little Channels, to lead Floods into it from all the higher Parts of the Hill's Top ; by which Means the next Rains, that fall, soaking thro' the exposed

exposed Body of the Chalk, will at once carry down, as it were, the whole Side of a Hill, which, breaking to Pieces in the Fall, may be carted in the Bottom, and carried out upon your Grounds, with Abundance of Expedition.

*Fuller's Earth* is found by the same Manner of Search, with the two foregoing ; and, I believe, I may venture to give it, as a general Rule, that, where *Marl* is not, *Fuller's Earth* is. The Places, to be examined, are the same in seeking one, as if you sought the other ; and 'tis no great Matter *Which* you find, if you can come at *Either* ; for their Use and Operation are as near alike, as possible.

*Clay* is another excellent Manure, and easy enough to be found in all Places ; but you must observe, 'tis only useful upon *Sandy* Grounds, or any Lands, of a Nature entirely different from its own ; among which you may reckon *Gravelly*, or *Pebbly* Soils. To these it brings the only part of Excellence they naturally want, and consequently changes them, from what they were originally, to an equal Fertility with the best and richest.

This will, perhaps, be strange News to many Countrymen, who have bought *Dung*, all their Life-Time, to destroy their Land with. 'Tis as great a Folly to *Dung* Grounds, which require *Cooling*, as it would be thought to administer *Poison*, to cure a Man of a *Fever*. Our Farmers are not sensible, that the *Temper* of the *Land* must, as necessarily, be consulted, as the *Pulse* of the *Patient*. The Dunghill only is their universal Refuge ; they fly to *That* upon all Occasions : They miss a Crop, by dunging an improper Soil, and lay on more *Dung*, to remedy the Misfortune.

Some few Years ago, a Friend of mine remarkably experienced the full Sufficiency of this Observation : He had a Couple of Fields, divided by a Hedge



Hedge only ; neither of which was fit for Corn, or Feeding : He resolved to improve them both, and when they were plowed up to that Intent, he found, that one was a hard brown *Clay*, and the other a very burning *Gravel* ; he was surprized to find these diametrical Opposites such Neighbours ; and supposed, that, for that Reason, the Hedge had been formerly made to separate them. He pulled down the Division, and having laid them open, set his Men to work, on trenching them six Inches deep : The Earth, they dug out of one Trench in one Field, he made them carry instantly to another Trench in the other Field, in Wheelbarrows ; by this Means interchangeably mingling the *Gravel* with the *Clay*, and the *Clay* with the *Gravel*. When this was done, he had it plowed all over by a deep cutting Plow, and has sowed it every Season since with the richest Grains : The Effect of this is, that He has not now a finer, or more mellow Piece of Ground in his Estate : The very *Nature* of the Land is altered, and there remains no visible Difference between the two Divisions, but the whole is converted into a good *Hazel Mould*, and produces a plump round Corn, and as plentiful Harvests, as any Soil, in the Kingdom.

I distinguish *Sheep-Dung* in the next Place, not as it is used in the general Way of *Folding*, but as I would have it used : And, as it would produce so great an Advantage, that, in a few Years, we might hope to see the bare and open Downs of *Berkshire*, *Wiltshire*, *Dorsetshire*, and other Counties ; nay, the barrenest Heaths of *Staffordshire*, and the very Mountains of *Wales* herself, become as good, and fruitful *Arable* and *Pasture*, as they are now unfruitful *Wastes* and *Desarts*.

These Kinds of Downs and Heaths are commonly barren, even in the utmost Extent of the Word ; because it is not often, they afford the natural

tural Helps, before-mentioned, whereby, they might by Industry be easily improved. I, therefore, *doubly* recommend the Manure, I am going to speak of, to the Owners of *such Places*, who may readily obtain it in what Quantities they please, because they only serve for *Sheep Walks*.

Let every Owner of a considerable Flock, in two convenient Places on his Sheep-Walk, build a Fold, of Bigness to contain his just Number, in this Manner: Let the Frame be made of Poles, or Posts, about twenty Foot high, and being roofed and thatched, let him board it, on every Side, but one. The Form may be an oblong Square, and which End he pleases left open. Into this new fashioned Fold, let the Sheep be driven every Night, and the open End shut up, by such hurdled Barriers, as the *common* Folds are made of.—While they are feeding, in the Day-time, let the Shepherd, instead of being idle, by the Help of a Spade, and Wheelbarrow, carry into the Fold such Earth, as he can dig, in the properest Places near it, and scatter it abroad, till he has covered in a Manner the Dung, which the Sheep had left upon the Place. This is the whole Design at one View, and this Work being daily renewed, the Sheep will lie higher and higher, as the new Earth raises them; and, by their Dung, and Urine (the Virtue of both which are thus preserved from the Exhalation of the Sun, and Injuries of Weather) will enrich the Soil to such a Degree, that there is Nothing, which you may not hope from it.

This Manure may, at proper Times be carried out upon the barren Lands, which may gradually be enclosed by such Parcels, as the Fold can afford Compost for. I need say no more, the Thing will speak itself: The Sheep's Dung is not only increased to many Times its Quantity, but also becomes a far more natural, and lasting Improvement

to any Soil, it shall be used on. This Caution only is necessary, that the Dung, designed for *heavy* Grounds, must be mingled with a *light* Earth, and so the contrary ; and it is for this Reason, that I mention two Folds, which Direction, notwithstanding, is to be observed, in no Place but where there are two distinct Soils, upon one and the same *Sheep-Walk*.

*Sea-Owse*, that is, the settling of the Tides, on Shores, and level Places, between low, and high Water Mark, is a Manure of incomparable Excellence, for many Sorts of Lands ; but is, on others, to be avoided, as a certain Bane to whatever Part thereof it is mixed with. Where to apply it shall be shewn in its proper Place, and how to find it needs not be taught such Land Owners, who live near the Sea, and are the only Men, to whom its Benefit can reach, tho', perhaps, the most unwilling to make Trial of its Virtue.

All Rivers, great or small, abound in Store of *Mud*, which is nothing less, than the very Heart, and Fruitfulness of Uplands, washed down by Floods, and carried on by Streams, till, rolling into Rivers, it is settled on their Sides and Bottoms, and remains an easy Prize to the Industrious, whose Labour it repays a hundred-fold ; and is of infinite Advantage, and yet every where neglected. I might say the same of cleansing of Fish-ponds, and the Bottom of Marsh Ditches, which is also of extraordinary Emolument to Men, who have Skill to hit the Quantity, and apply it rightly.

When I spoke of *Sea-Owse*, I should also have mentioned *Sea-Sand*, to which not any of the former is preferable. This is a valuable Fund of Plenty, which, tho' surrounding us on every Side, is only made use of in one Corner of the Kingdom. I could tell almost incredible Examples of what Men might expect, from an Improvement of their  
Lands



Lands this Way ; nor is it any particular Kind of Sand, which may be thought endued with a peculiar Efficacy, but every common Part of that vast Sea Shore, whereby we are encompassed.

There is yet another Friend to Vegetation, which the Sea, indulgent to our ungrateful Soil, throws in upon us ; and which we leave to be regorged by every returning Tide. I mean a certain floating Substance, which is torn, by the Force of Waves, from the Sides of Rocks, on which it grows, and lies in great Quantities upon the Coast. It may be found in all Creeks and Rivers, to which the Sea has Entrance, and is commonly called *Ore-Weed*, and by some *Sea-Weed*. It is of wonderful use upon most Lands, and deserves a far greater Value than we put upon it.

And now, I think, it is almost demonstrable, that there are very few Estates in *England*, so unhappily situated, but that some *one*, of the above-mentioned *Manures* may be found about it. But, because it may be asked, if I would utterly banish the Use of *Dung* from among us, I answer, *No* : But will endeavour to direct a Means, whereby it may not only be used with much less Danger, than at present, but to many Times the Profit, which it now produces.

Along the Back of your Stable, cause a Pitt to be dug, to the Depth of the Foundation, or a pretty deal below it ; let it be as long as the Stable, but its Breadth should be according to the Quantity of *Dung*, you have Conveniencies for making : Let this Pit be arched with Brick, but very slightly, and an Entrance left at one End, which may be shut up, or opened by a wooden Door : Let the Sides, and Bottom be firmly lined with Stone, and closely plaistered over with a Cement, which will by no Means admit Moisture.

Through

Through the Wall of this Stable, and about a Foot or more from the Ground, let there be made square Holes, which opening into the Stercorary, from within the Stable, must be of sufficient Largeness for the Passage of the *Dung*, that is, from Time to Time, to be shovelled through them.

The Stable Floor should be made as smooth and hard, as possible, that the Urine of the Horses may not soak into it, but, descending from them to a little Gutter, close along the Wall, thence run thro' Passages, which are purposely to be made into the Stercorary.

Pipes of Earth, which will cost but little, should be laid, from this Place to the *Cow-house*, *Hog-sties*, and *Privies*, that all *Urine* of Man, or Beast, of any Kind whatsoever, may immediately be conveyed to mingle with the other. Into which must be cast all *Ox Dung*, *Cow Dung*, *Hogs Dung*, and *Dung* of *Fowls*; all *Ashes*, whether of Wood, or Sea-Coal; the Dust and Sweepings of your Yard and House; all *Weeds*, old *Litter*, rotten *Straw*, and spare *Earth*, which you can get; as also the washing of *Barrels*, all *Soap-Suds*; *Water*, which *Meat* has been boiled in; *Dish-Water*, and every such Kind of Thing, which is now thrown down the common Sink, and rendered Useless: And, for the more convenient Performance of all this, there may be left a pretty large square Hole, in the outward Declivity of the Arch, which covers the Stercorary: This Hole must have a wooden Door fitted to it, which, lifting up and down, will, as Occasion offers, not only serve for taking in the Things above named, but, whenever more Moisture may be thought wanting, it will admit as much, as is convenient, by being left open in rainy Weather, and, as soon as that, forbid the Entrance of any more. The other Door, which I spoke of, in one

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of the Ends, is only to serve for carrying out the *Dung*, when it is to be made use of.

In such a Stercorary, as is here described, the Charge is a Trifle, not worth naming, in Comparison with the Profit. The *Dungs*, and other Things, incorporating and fermenting thus together, mellowed, and enriched by the Spirit of the Urine, and unimpaired by the Sun, Rain, or Wind, attain an Excellence, which is best known by the prodigious Encrease they make in your Crops; and which demonstratively proves, that *one* Load, thus managed, is of more Effect, than *twenty*, after the common Manner.

I may reckon *Burning* of Land among *Manures*, because it is a very great Improvement, and only practised upon some old *Pasture*, or *Heathy*, *Rusby*, *Broomy*, and such like barren Grounds, which are greatly enriched by it; though, for want of one Observation, Lands so improved are generally ruined, in the common Practice of Plowing them three or four Crops successively; by which Means their whole Fertility is most assuredly exhausted, and the Soil becomes incapable of Vegetation, tho' assisted by the richest *Dung*, or other Manure, in the World. Nothing, but ten, or fifteen Years Repose will restore the abused Vigour of Nature; whereas, were these Grounds strengthened by a little *Marle*, *Chalk*, or *Dung*, between their first Harvest, and their second Seeding, the Improvement would be made compleat and lasting: No Method would be more easy, nothing possibly more advantageous.

The Manner of burning Land is generally known to be a paring off the fibrous Turf, to a considerable Depth, in a hot Season, which being made into little Hills, raised hollow, and at equal Distances, are set on Fire, as soon as they are dry enough to kindle, and so burnt to a kind of red Ashes; and those

those Ashes scattered over the whole Surface; the Ground is then plowed up very shallow, and the Seed immediately sown.

This burning of Ground is very costly, and not a little tedious, because the Turf is raised in a laborious Manner, by the Force of a Fellow's Arms and Bosom, pushing against a Thing they call a *Breast Plow*.—I will present you with a much neater Invention, and which saves, at least, two Thirds of the Charge.

Let some *Smith* in your Neighbourhood, who is a ready Workman, make a hollow Plow-share, of a double Form, that is, one which rises with a sharp Edge in the Middle, from the Point to the Top, and has a *Fin* both Ways; which Fins must also begin at the Point, and so run back to the Share End. The Dimensions of this Share will be two Foot broad, from the extream Points of the Fins behind; one Foot long, and a Foot high, somewhat like a three-edged Sword, if it were cut off a little above the Point. The three Fins, or Edges must be very well steeled, and the whole made as thin, and as smooth, as you can get it done.—Into the Hollow of this Share must be fastened a light strong Piece of Ash, sharpened *forward*, to fit the Bosom of the Share, but *behind* as square, and sturdy as may be. Into this last Part must be fixed a strong Piece of Wood, like a *Lever*, not perpendicular, nor very far from it, but somewhat hanging backward: It must be about two Foot high, and on the upper End should have a cross Staff, or other Contrivance, to which must be fastened the Harness of such Cattle, as your Team consists of. The Handles of the Plow, and the *Earth-Boards*, to turn the Turf, are also fixed into this square Head; and there is no Manner of Instruction necessary for the Use of this Plow, but that, when you begin upon the



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Edge of a Field, and turn one Turf to the Edge, and the other to the Field, the last will cover one of the Breadths you must take at your coming back, and the Point of your Share must, therefore, run close along the Edge of this Length of Turf, by which Means one Side of your Plow will raise two Lengths, and, throwing back the highest, lay that uppermost, which had before lain under : And by this one Observation you cannot miss the Manner of Plowing.

But, because this would only raise a long unweildy *Rope* of Turf, which it would be necessary to cut into many hundred Pieces, before it could be fit for *Piling*, you will find the following *Invention* of admirable Use and Expedition.

Chuse the Body of a short thick Tree, the heavier, and more solid, the better ; let it be neatly rounded, and worked into a *Roller*, like those, we use for levelling our Barley Lands. This Roller must be hooped round, in six several Places, each two Foot distant from another ; the Hoops must be of strong Iron, and nailed very firmly on. --- The middle Part of every one of these Hoops must rise into an Edge, to about five or six Inches above the Level of the Hoop itself ; these Edges must be very sharp, strong, and well steeled, that the Weight of the Roller, as it goes round, may not fail to press them all into the Earth, as deep as they can go, and yet not damage them, either by blunting, bending, or breaking.

One Horse will very well draw this Roller, with which you must go over the Ground, you intend to burn, the contrary, or *Cross* Way to that, which you design to take with your Plow, before described ; which will, by this Means, turn up the Turf, in Pieces of two Foot long, and one broad, the exact Size they ought to be, to form the little Hills above-named. I have nothing to add upon  
this



this Head, but, that those, who practise it, had need be careful how they *overburn* the Turf, which would, in that Case, be robbed of much of its Fertility. A gentle Fire, not flaming out, but mouldering inward, is the surest Means of hitting the Perfection of this Work.

I have now provided a sufficient Store of Manure, and come next to consider, how to plow the Ground, on which it is to be bestowed ; and, this Work finished, I will wind up my Directions, in as narrow a Compass, as will contain them.

There is no Occasion for more *Plows*, than two ; one, for a *hard*, or *heavy* Soil, and the other, for a *light*, or *mellow*. There are in *England*, above a hundred several Sorts of Plows, and all bad : It is surprizing to see the Toil and Charge some People put themselves upon, for want of a compleat Knowledge in the *Make*, and Management of this useful Instrument.---I have seen eight Oxen tacked to a Plow, which the weakest Beast in the Team would have easily drawn, in a Soil much heavier, I distinguish the only two Plows worth using, by the Names of the *Strong* and the *Light*.

The *strong* Plow is to be used on all *hard Clays*, *stiff binding* Soils, and *stony* Grounds, or any Lands of a *repulsive*, or *sticky* Nature. It is drawn by *two Oxen*, nor are more, at any Time, necessary. The Description follows.

Let the Length of your *Share* be a Foot and a Half, the Point indifferently sharp, but very strong; let the Shelving-side be worked thick, and without a *Fin*, but steeled all along its Edge, from the Point to the hinder Part, where its perpendicular Height must not exceed six Inches.---The Breadth must be just sufficient to carry a Furrow seven or eight Inches broad. In this Plow, the Place of the Breast-board must be supplied by an Iron Plate, which, joining to the Share, and being Part of it,

Edge of a Field, and turn one Turf to the Edge, and the other to the Field, the last will cover one of the Breadths you must take at your coming back, and the Point of your Share must, therefore, run close along the Edge of this Length of Turf, by which Means one Side of your Plow will raise two Lengths, and, throwing back the highest, lay that uppermost, which had before lain under: And by this one Observation you cannot miss the Manner of Plowing.

But, because this would only raise a long unwieldy *Rope* of Turf, which it would be necessary to cut into many hundred Pieces, before it could be fit for *Piling*, you will find the following *Invention* of admirable Use and Expedition.

Chuse the Body of a short thick Tree, the heavier, and more solid, the better; let it be neatly rounded, and worked into a *Roller*, like those we use for levelling our Barley Lands. This Roller must be hooped round, in six several Places, each two Foot distant from another; the Hoops must be of strong Iron, and nailed very firmly on. The middle Part of every one of these Hoops must rise into an Edge, to about five or six Inches above the Level of the Hoop itself; these Edges must be very sharp, strong, and well steeled, that the Weight of the Roller, as it goes round, may not fail to press them all into the Earth, as deep as they can go, and yet not damage them, either by blunting, bending, or breaking.

One Horse will very well draw this Roller, with which you must go over the Ground, you intend to burn, the contrary, or *Cross* Way to that, which you design to take with your Plow, before described; which will, by this Means, turn up the Turf in Pieces of two Foot long, and one broad, the exact Size they ought to be, to form the little Hills above-named. I have nothing to add upon  
this

this Head, but, that those, who practise it, had need be careful how they *overburn* the Turf, which would, in that Case, be robbed of much of its Fertility. A gentle Fire, not flaming out, but mouldering inward, is the surest Means of hitting the Perfection of this Work.

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is, in a bellying Manner, carried back, and gradually brought to *Whelm*, as if it would fall upon the Furrow. This Plate, being made as thin, as its Use will permit, is supported by a Pin from the Plow-Head, which is in all Respects the same with that of the Plow, which I just now recommended, for paring up the Turf of Lands to be burnt.--- This Breast Iron, with all the Neatness and Facility imaginable, takes the Earth, as it rises on the Share, and, without labouring under the Load of a long Furrow, turns it over, as it runs along, and neither toils the Oxen, nor the Driver.

One Man is enough in all Reason to manage this Plow ; He guides his Oxen by a Goad, as usual ; and holds the Handles with a great deal less Fatigue, than in other Plows, for they are to be set at a large Slope, and their Ends standing wide from each other, they have the greater Power over the going of the Plow : If the Share is apt to *bite*, or run too deep into the Ground, his leaning a little harder than ordinary on the Handles, will raise the Point to what Pitch he pleases ; as, on the contrary, when he lays no Stress upon them, the Team will of Course draw the Point downward.

The Oxen, while out of Business, may feed at large, or be used at Pleasure ; but when you work them, it will be necessary to keep them up in a Stable, or some Stall, built purposely for them. Hay and Straw mixed is what will very well content these easy Creatures, but they deserve to live in Clover, and pure Hay is what they will very gladly feast on.--- Your Men should make two Journeys in a Day, let the Seasons of your plowing vary, as they will ; the first, from Day Break to eleven o'Clock, and the second, from One in the Afternoon till Night. This is what your Oxen, with the Help of their two Hours Bait, can very easily perform ; but your Plowman, who is generally the

the worst Beast of the Three, may, perhaps, think much of his Labour.

The *Light* Plow is properly to be used, on sandy mellow Grounds, and all such, as are directly opposite to those, for which the *strong* Plow is recommended. It is drawn by two Horses with no Manner of Difficulty ; or with one, if you please, for many have tryed it.

The *Share* of this Plow is, in a Manner, the Share of the *Turfing*-Plow, divided into two equal Parts. The Share of the *Light* Plow shelves only one Way, as not being double, and has a *Breast-Iron* exactly like that of the *strong Plow* ; in all other Respects, it is the very same with the *Turfing*-Plow, even in Dimensions, and therefore needs no farther Description.

One Man will hold, and drive this Plow, with more Ease, than the strong one, because the Lands are more manageable. The Reins, whereby he turns, and checks the Horses, pass through two long Slits, in each Handle one, and being just of Length enough to hang five Inches, or more down, are prevented from being drawn back through the Slits, by two Pieces of Wood, to which their extrem Ends are fastened.

I need not tell you how the Horses should be fed and kept ; that Skill is common.---I observe only, that Horses, if you feed them well, are as able to go two Turns a Day, as Oxen. It may not perhaps be generally known, that a Horse is apt, by rising in the Night, and falling to the Rack, to pull down, and spoil great Quantities of Hay, whereby he does not only commit Waste and Damage to his Master, but deprives himself of that needful Rest, which would have qualified him much better for the Labour of the succeeding Day. You may easily prevent this Inconveniency by emptying the Rack at Night, by which Means the Horse, when

when he rises, and finds his Expectation baulked, will content himself to lie down again immediately, or stand, and sleep, as he should do.

I can't introduce a very useful Observation in a more proper Place, than This ; and that is, when the Land you are to plow, is the Side of a very steep Hill, as it often is, it is down right Madness to proceed, as most Countrymen do, by plowing directly up and down the *Steep*. In this Case, it is Pity the Driver is not in the Place of his Team ; he would then perhaps discover, that it would be the wisest Way to plow cross the Hill, by which Means, the Cattle would not only draw with the same Ease, as if they worked on plain Ground, but the Furrows, lying athwart, would prevent the Rains from washing down the Fatness of the Soil, with every Flood ; a Misfortune, to which at present, all these Lands are yearly liable, and often ruined and impoverished by it. But, I hasten, as I promised, to direct to as full a Knowledge, as is necessary in the general Practice of Husbandry, to a far greater Profit, than is now made by it.

As for the general Difference of Soils, I divide Ground into two Sorts, the *Good* and the *Bad* ; The *Good*, as being such already, I intend not to discourse of, aiming only to instruct the Gentlemen of *England*, how to make the *worst* part of their Estates, of equal Value with the *Best* ; and in the Rules laid down, in order to the attaining of this End, include a practical Description of the *complete Art of Husbandry*.

Common and indifferent Lands then I distinguish into *Heavy* and *Light*, and comprehend in this Distinction every particular Difference of Soil, which is known in this Kingdom. All deep, hard Clays, of what Colour soever ; all stiff, chalky, binding Earths, and such, as, after being exposed to the Sun or Frost, grow hard and stony with such,  
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as, in the violent Heats of Summer, chop, and cleave upon their Surface ; all these I call *Heavy* Lands, not only because of the Closeness and Firmness of their Nature, but as they all hang *heavily* on the Labour of the Plowman, and his Team.

On the other Side, all sandy, mouldering, gravelly, warm, mellow Soils, all loose, and open Earths, of what Nature soever ; all such, as are not sticky, but will presently dry after Rain, and, instead of lying in huge Clumps after plowing, are easily apt to dissolve, and crumble into Mould, not being subject to bind by the Heats in Summer, and Frosts in Winter ; all Grounds of this Kind I distinguish by the Name of *Light* Lands.

I will describe the particular Process necessary for each of these Soils, and, that I may the better comprehend the whole Art in my Directions, I begin them both in the Turf, that so following them from the first breaking up, to the utmost Extent of their Improvement, I may omit Nothing, that a Practiser ought to be instructed in.

Let us suppose then, that, at *Lady Day*, you begin your Husbandry, and that the Quantity of Land you are about to break up is a hundred Acres ; the first Thing necessary is, carefully and judiciously to observe both the *Surface* of your Ground, and the *Depth* of it : If you find it a good deep Mould, and covered by a thick, strong, fibrous Turf, such as, by long lying, is become firmly rooted ; in this Case, it will be much the wisest Way to *burn*, and spread the Ashes, by the Rules before given, not by any Means omitting to manure, between the first *Reaping*, and the second *Sowing* ; after which you may proceed in all points, as if the Turf had been plowed in, instead of being burnt.

But if, on the contrary, you find your upper Mould shallow, or thin turfed, it will by no Means  
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be proper to burn it ; you must therefore take Notice, whether your Soil be of the *Light* Kind, or the *Heavy* ; if, upon the examining it by the Marks abovementioned, you find it of a *heavy* Nature, you must prepare your *strong* Plow, and Ox Team, and take Care, that in the first breaking up, as they call it, your Plowman turns the Turf Side neatly downwards, and lays his Furrows so smooth, and close together, that, at a little Distance, a Man can scarce see where the Plow went. An Acre and a half may easily be plowed in one Day, by the Use of this Plow, so that, beginning by the first of *April*, and allowing for *Sundays*, and accidental Hinderances, the hundred Acres will be all broke up, by the middle of *June*, at farthest.

Between this first Plowing, and the second, is the only proper Time for laying on your *Manure*, of what Kind soever. The several Sorts proper for Lands of this Nature are *Sea-sand*, *Common-sand*, *Sea-Owse* of the lightest Kind, not such as is black, and greasy ; *Sheeps-dung*, mixed with *Sand* under a covered Fold, as before described ; or, for want of any of these, the *Compost* in your *Stercorary*.

Which ever of these you lye most convenient for, you may make use, in the following Proportions : Of *Sea-sand* you must lay upon every Acre, five and twenty Loads ; Of *Common-sand* never less than a hundred, which Quantity you may double, if it lies commodiously : Twenty Load of *Sea-owse* is sufficient ; and fifteen of *Sheeps-dung* so mingled : And, if you are obliged to relye upon the Assistance of your *Stercorary*, you must lay about twenty Load upon an Acre.

According to the *Manure*, you are obliged to use, your Charge will be more, or less considerable in the Number of Carts and Teams necessary ; for this Rule you must be sure to observe punctually,

ly, that the *Manure* be all laid on, by the last Day of *July* : In which Time the Plowman, a Labourer being employed in spreading the *Manure*, as it is daily brought on, does, with the same Plow he used before, give the second stirring to the Ground, in order to turn in the Richness of those Helps, you have bestowed upon it. By this Means the Sun, high and powerful in this Season, will be prevented from exhaling the *Virtue* of your *Manure*, as it always does in the Common Way of letting it lye in little Heaps on the Field, for a great while together.

You may observe, that I allow a shorter Time for *this* plowing, than for the *first* ; and the Reason is, because the Ground having been broken up before, and the Turf now rotten, it is become more mellow, and the Draught so much easier, that a Team may dispatch almost a double Quantity in a Day.

It is now the Time to *Harrow* over your Ground with a heavy wide-tooth'd Harrow, and a great Weight laid upon it ; by which Means more Mould will be raised, the Clods broken into smaller Pieces, and the *Manure* mingled with the Soil in every Part. It is not enough to harrow once, and away ; You must go over the same Ground, again and again, till you have made it as smooth, and crumbly, as is requisite. And this Work will very well employ your Team, from the End of *July*, to the Middle of *August*, about which Time should be begun the third and last Plowing.

This Time, which is commonly called *Seed-Plowing*, the Team should go across the former Furrows, and turn up the Earth in different Lines from those, which were made by the two former Aratures : This Work will be finished about the End of *September*.

Now,

Now, let your Corn be sowed, and let it be *Wheat*, after the Rate of two Bushels upon every Acre ; when the Seed is on the Ground, let your Team be fastened to another Kind of Harrow, not so heavy as the former, and whose Teeth are small and very close to one another ; by the Help of which the Grain will be all covered by the Mould, and lie pretty near to an even Depth ; two very great Advantages, in the Practice of Husbandry.

But here two Cautions naturally offer themselves to your regard ; the first, as to the *Choice* of your Seed Corn, and the other, as to your *Preparation* of it ; either of which, though neither is generally observed, cannot, without great Damage, be neglected, whether in *Wheat* or *Barley*.

Let your Corn be brought into the Corner of a large *Barn Floor*, or great *Boarded Hall*, such as a few Country Houses are without ; order a Man, with a broad wooden Shovel, to throw the Corn, with all his Force, towards the opposite Corner of the Barn or Hall, the last is generally the fittest for it :——In this Exercise, all light, small, shrivelled Grain, and the Seeds of *Cockle*, *Darnel*, and other *Weeds*, not being so heavy, as the solid Corn, will fall short, and lie nearest to the Man, who throws them, while such, as is large, plump, and weighty, outlying all the rest, is separated widely, and may easily be gathered in what Quantity you please.——Experience only is capable of making Men believe the wonderful Advantages of sowing Seed, thus chosen.

Take your Corn, when it has been thus obtained, and throw it, by a Bushel at a Time, into a large Vessel full of Water ; let a strong Man stir it with a Staff, as violently as he can, for a considerable while together, and then, giving it a little Time to settle, skim off all that swims upon the Surface ; and repeat this Labour, till no more rises ; after which take out the Corn, which is sunk



sunk to the Bottom, and lay it by for *Seed*, proceeding in the same Manner, till you have your intended Quantity.

Now, make a *Brine*, by throwing *Bay-salt* into *Rain-water*, till it becomes of strength enough to bear an *Egg*: In this Liquor steep your *Seed Corn* thirty Hours; ~~let~~ Time will have no Manner of Effect; observe this, and regard not the contrary Opinions of any Men, let them pretend to never so much Skill.

When you take your Corn out of this Brine, spread it upon a smooth Floor, and scattering upon it good Store of the *fine-ground Powder of slack'd Lime*, sweep it up and down, and mingle it with the Corn, till every Grain leaves clinging to another, and becomes, as it were, *Candied* with the *Lime*: And, in this Condition, let it be *Sow'd*, never entertaining a Moment's Doubt for the infallible increase of your Harvest.

*Weeding* would, in this Case, be an unnecessary Instruction; for Grain, thus managed, and Ground thus ordered, will admit no Rival, till the Crop is down. *Weeds* are the exulting Triumphs of Neglect or Ignorance, and the very Scandal of our Husbandry.——But Harvest comes, and if you reap, and carry in, with the same Care, you have used in the foregoing Part of your Labour, depend upon it, and you will find yourself agreeably deceived, if you do not believe it, 'twill be no unlikely Thing, to count *two thousand Pound*, as the Produce of your *one hundred Acres*.

About *Michaelmas* after, take the Opportunity of a very dry Day, and moderately windy, to set Fire to your *Stubble*, in so many Places, as may serve to carry the Flames over the whole Surface of the Ground, on which the Stubble of such a Harvest, as you may expect, by the Management described, will grow so thick, that the Ashes, and  
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Warmth of the Fire, will be as much Advantage to the Soil, as the best of your common Dungings. ——— When you have done this, let the Land be plowed up in *Ridges*, and lye so, till the beginning of next *February*.

And here will come in a *Caution*, that, if these Lands lie very *flat*, and apt to be *watry* in the *Winter*; your Plowman must be directed to lay his Ground in *Ridges*, which every Country Fellow knows the Manner of doing, though they are not so well acquainted with the Knowledge, that the general Ridging of all Kinds of Lands for Winter Corn, as is commonly practised, is ridiculous, and by no means necessary.

You may take Notice, that in such Lands, whose moist Nature requires Ridges, it will be requisite to make your *Harrows* the full *Breadth* of a *Ridge*, and so contrived, as to clap close on each Side of it, to prevent the Inconveniency of throwing down too much Earth into the Furrows.

But to return to our hundred Acres, which we left under a Rest, by Farmers called a *Winter-Fallow*: Let your Plowman renew his Work, at the first coming in of *February*, and plowing across the old Ridges, lay his Ground in an uneven Surface, full of little Hillocks, and low hollow Places: And, in this Condition, let him sow it with Barley, the first dry Weather in *March*, after he has done plowing it; and then, harrowing it well over, first with the wide-tooth'd, and then with the close Harrows, it will cover the Seed at a good Depth, and lie as smooth and neatly as possible.

I need not remind you, that you are to chuse your *Barley* Seed, and steep, and manage it, when chosen, with the same Care you used, in your Seed *Wheat*. Sometime in *May*, when the Ground is hard and dry, it will be proper to make one Horse draw as heavy a Roller as he can over your Barley.

ley, by which Work the Ground is not only made level for the *Mowers*, but the Earth being pressed hard down, the *Spires* are checked for some Time, and the *Roots*, by that means, spreading and growing stronger, are the better able to shoot up a Multitude of Stalks, and nourish a fuller Grain, and more plentiful Harvest.

This second Crop is a Grain, in *Use*, and *Price*, inferior to Wheat, and, consequently, will fall short of your first Year's Profit; but a second Harvest of twelve, or fourteen hundred Pound, will be no despicable Reward of your Diligence, and you may oftner be disappointed by a greater Gain, than you will by a smaller.

As soon as this Crop is well in, plow up the Stubble, and sow Wheat with the same Care you used before, harrowing it well in: And there is no Reason to fear but you shall reap as great an Increase this Year, as you did the first.

But now we are come to the Pillars of *Hercules*: A third Year's Crop is a skilful Husbandman's *Ne plus ultra*, in the whole Course of his Practice. One more Plowing works your Soil into an almost incurable Consumption; but leave off, while all is well, and be but contented with the same Profit, by a different Application, and this single Prudence will make the Value of your Land, as durable, as the Land itself; while other Men, for want of Skill in this essential Point of Husbandry, are forced to rest contented with a constant Income, and a poor one, or, for a present extraordinary Advantage, entirely ruin the future Worth of their Estates.

To prevent this Fate upon your Land, as soon as your third Crop is down, burn up the Stubble, as before; and, plowing up the Ground with great Care, go over it with fine toothed Harrows, which may gather all the fibrous Roots, and other Thrash together;



Warmth of the Fire, will be as much Advantage to the Soil, as the best of your common Dungings. ——— When you have done this, let the Land be plowed up in *Ridges*, and lye so, till the beginning of next *February*.

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together ; which being laid in little Heaps, and burnt, the Ashes must be spread about, and the Ground again harrowed to an exquisite Fineness.

When this is done, let the Ground be cautiously, and in a still Time, sowed with *Clover*, not *English* Clover, but the Seed, which is brought from *Holland* and *Flanders*, and may be had cheap enough, at most of the Seed Shops, in *London*.——You may know, whether the Seed be good, by trying it in Water, where all that swims, is to be rejected.

There is a certtin *Fly*, which is sometimes known to eat this Seed in the Ground, but that Inconvenience is easily prevented, by steeping it, for the Space of a Night, in *Soot*, and as much *Urine*, as will make it a *Liquid*. I desire, that one Rule may be particularly observed, and that is, never to sow less, than *twenty Pound of Seed* upon an Acre.

Many will object against this, as a double Charge, because, *say they, I never knew any Man, who sowed above half that Quantity*.——I answer, they never knew any Man, who reaped half the Profit, which he might have done by it, if they had followed my Directions.——It is observable, that there are more ignorant Men, who profess Husbandry, than of any other Art ; and yet fewer of this Profession, than any of the rest, who think they can be taught. A Man, who was not possessed of this Temper, would easily imagine that the thicker this little Seed is sown, the thicker it will spring, and the better keep down all Weeds, and common Grass, and, consequently, become of double Advantage.

Sowing *Clover* thus in *September*, instead of the *Spring*, and sowing it alone, has many Conveniences : It will rise thick, and swarth the Ground, before the hard Weather comes in, and thereby not only gather Strength, to defend itself against the Winter Frosts, but will be so early in the Spring, that



that you might Mow it, the first Time, in the very Beginning of *May*, or, perhaps, sooner.

When the first hard Frosts have bound the Earth so fast, that you may bring Horses upon it without Damage to the Roots of the Clover, this is the very Point of Time in which you should bestow about eight or ten Load of *Sea-owse*, *Sea-sand*, *Sheeps-dung*, or that of your *Stercorary*, upon every Acre, taking Care to spread it as equally as may be, that, when the Frost dissolves, the Rains may drive the Strength of the Manure into the Earth, which in the tender Infancy of her new Turf will easily admit it, to the nourishment of the Roots, and surprizing Encrease of your Clover, both as to Quantity and Sweetness.

Three Years your Clover, thus managed, will thrive amazingly, and produce an unexpected Profit; but let not that tempt you to continue it longer. At the End of the third Summer break it up, and, after two Plowings, sow it in the Spring with *Barley*: After the Barley, take two Crops of *Wheat* successively, and then, without *Manuring* it, lay it down with *Clover*. Always observe an *alternate Husbandry*: Three Years *Plowing*, and three Years *Clover*, you cannot guess the Advantage which will accrue by a strict Adherence to this one Rule: Your Land, so managed, will for ever retain its full Vigour, Yearly afford the largest Crops, and never fall under a Possibility of being worked out of Heart: A Fate which almost all the Lands in *England* are forced to submit to, by the present Practice.

I will add a little more, as an Instruction how to make the *greatest* Profit by your *Clover*.---Here again, I take the Liberty to lead you out of the *common* Road, as indeed I have done all along, and shall continue to do till I have done with the Subject.---I write the Rules which ought to be practised,

and could I contrive to make them as *general* as they are *profitable*, I should happily accomplish the *Publick Good*, which I aim at in this Essay.

I shall neither advise to feed with it *Oxen*, *Sheep*, or *Horses*, nor to mow it for Hay, or Seed; nor any of those general Purposes to which it is applied. There is a *Profit* which exceeds them all, and yet was never practised, that I know of, but by two or three Gentlemen of my Acquaintance, and by my Advice and Persuasion.

About the same Time you sow your *Clover*, or a little sooner, sow ten or fifteen Acres, in any Part of your Estate, with *Turnep Seed*, for a Use to be mentioned presently.

About the Beginning of *March*, take your best Opportunity to buy three hundred *Sows*; all such as are to *Farrow* in a Month, or thereabouts. In several convenient Places of your Clover Ground, let there be made little *Sties*, which may be easily formed of *Boughs* or *Reeds*, in the Corners of Fields, and under the Hedges. In these *Sties* let your *Sows* be kept up, and fed daily with the *Turneps*, which you sowed the *Autumn* before: At first, you must be at the Trouble of boiling them, Tops and all, and giving them in the Troughs with the Water not yet cold; you may afterwards but just *scald* them, and so in a Week or ten Days, they will eat them *raw*, with the greatest Greediness and Pleasure imaginable.

In the Beginning, or about the Middle of *April*, these *Sows* will *Farrow*; which having done, you must continue your *Turnep-feeding* no longer than till the *Clover* is pretty high; and then let the *Sows*, with their *Pigs*, run at Liberty among it. 'Tis impossible for one, who had not seen it, to imagine with how much Eagerness the *Swine* will graze on *Clover*: The *Milk* is hereby so strangely increased, that the *Pigs* shoot forward at a double  
Rate

Rate, and, as they leave off sucking, take to feeding on the Clover with a wonderful Delight; by which they prosper so fast, that every *Pig* will, by the End of *October*, be readily sold in any Market, for *twenty* or *five and twenty* Shillings. The Treading of *great Cattle* is apt to break the Stalk of Clover Grass, and *spoil*, by trampling down, a much greater Quantity than they *eat*: But *Swine* are never hurtful this Way; and, if you fear their *Rooting* up the Ground, you easily prevent it by a Ring in their Noses, though I never knew a *Hog* break up an Inch of *Glover*.---They *graze* here with more Pleasure than they could *root*: But there is one Advantage, which is inimitable by any other Practice; their *Dung*, which, in direct Opposition to the vulgar Error, is the best and sweetest of all other, does, in their three Years pasturing upon the Soil, so wonderfully enrich it, that it will never need additional Manuring, but produce prodigious Plenty of whatever Grain you sow it with.

See here then a Practice preferable, every Way, to what is commonly followed: Will they object 'tis *chargeable*! How poor an Argument is that, when they oppose it to the *Profits*: Will they allow *six* Pigs to every Sow? They cannot contradict such a moderate Expectation; will they admit them to be sold, at seven or eight Months old, for twenty Shillings? Perhaps they'll say, it is too much; I answer, No; it is too little: The Sows will yield forty Shillings a-piece, from those who buy for Bacon; and, at that Rate, three hundred *Sows*, and eighteen hundred *Porkers*, will, upon your hundred Acres, produce, every Year, four and twenty hundred Pounds.

They are amazed!--and they have Cause! This, tho' a Secret undiscovered by our Croud of Husbandmen, is plain, is easy; and, set aside *Experience*, 'tis demonstrable by common *Reason*; yet



was it never practised, and will, even now, be oftner *ridiculed* than *imitated*, till it becomes as common as the *Spade* or *Dung-Fork*.

Let it not be objected, that I make no Allowance for the Deaths, or other Casualties, unavoidable in such a numerous Herd; I have prevented it already: Why else should I allow a Sow but *six*, when she is commonly known to *double* that Number? If 'tis urged, that eighteen Swine will overstock an Acre; 'tis a Mistake, and will be found so in the Practice. But then, by the Way, allow a Difference betwixt Clover *their* Way, and Clover *mine*.

I have done with the *heavy* Grounds, and come now to your Lands of a *light* Temper. ——— For Method's sake, we will begin at *Lady Day*, upon this Land also. Here the *light Plow* is to be used, and as to the turning down the Turf, and laying smooth the Furrows, the same Care is to be observed on one Land, which is recommended on the other. Of this Work, two Horses, with the Plow aforementioned, will constantly break up two Acres a Day; and beginning with *April*, and allowing, as before, for Sundays, &c. the hundred Acres will be very well plowed, for the first Time, by the latter End of *May*.

Betwixt the *first* Arature, and the *second*, these Lands are, also, to receive the natural Recruits, which you think fit to give them; and that may be either *Chalk*, *Marl*, *Clay*, *Sheep's Dung* prepared with *Earth*, not *Sand*; *Sea Owse*, of the closest, black, fat Kind; all Sorts of *Mud*, or, for Want of either of these, your *Stercorary* may supply you.

Five and twenty Load of the last is the Quantity most proper; thirty of Chalk; of Marl, at least a hundred; and of Clay, a little more. Twenty Load of prepar'd Sheep's Dung, and as much of Sea Owse; and, if you use Mud, less than forty or  
fifty

fifty Load will be too little: Use either of these Manures, as your best conveniency invites you, and, as was directed before, take Care that your Plowman turns it in, as fast as it is brought on and spread upon the Surface.

But here comes in a necessary Caution, that your Men begin to bring on the Manure on that End of your hundred Acres which your Plowman first began to break up, that the Turf may be rotted before it is turned up the second Time.---Be regardful of this Rule, or you will find the Neglect of it produce a great deal of Confusion.

When the Manure is all turned in, bring on your heavy Harrows, and go over the Land so often as till the whole Mass is exquisitely mingled, and the Mould becomes fine, and dusty: You must be *doubly* careful in this Operation upon your *light* Lands, which ought, by the Harrow, to be laid as smooth and level as a *Table*.

About the Beginning of *August* will come on your *Seed Plowing*, properly so called upon these light Lands, because you must here *Plow* and *Sow* together. As to the Seed Corn, the same way of chusing, steeping, and preparing, which was directed for the *heavy* Ground, is as necessary, and as advantageous upon this also: But the way of *Sowing* differs widely.

Let one Man with a Hopper full of Seed, walk down in one Furrow before the Plow, which follows him close in another:---This Man must drop the Corn, by little and little, as he goes along, directly in the Bottom of the Furrow, which will be presently covered, at an equal Depth, by the Earth which the Plow throws out of the other Furrow.---By this Means the Corn will spring thick, and it Rows, about a Foot asunder, which meeting an Top, like an Arch, will permit no Weed to rise under them.

Less than two Bushels of Seed will be enough, in this way of Sowing, and the Ground will need no Harrowing after it. The Birds will devour none of the Corn, nor can the Frosts destroy any; both which Inconveniencies the other way is subject to; but you must note, that only *light, mellow* Grounds are capable of this Management: A *heavy, binding* Soil would choak the Grain, before its tender Spires could find a Passage through it.

An Objection may be raised, *that I suppose all Soils are fit to bear Wheat*.---I own it; and will affirm, with a just Contempt of the Slothful and the Diffident, that by Labour, Skill, and good Manuring, a Man may reap Wheat from a *Rock*. No Ground is unfit for any kind of Grain, but through the Ignorance of its Proprietor; Earth is a passive Body, and will change its very Nature, in obedience to the *Tiller's Art*. Virgil's *Non Omnis fert Omnia tellus*, is only meant, that all Earths, in their natural State, are not fit for every Grain, but that judicious Cultivation is necessary to bring them into such a *general Capacity*.

It is to be understood, that the third Plowing, just now described, is to be made across the Fields, directly contrary to the two former, as was directed in the Discourse of *heavy Soils*.

When the first Year's Harvest is over, which, in these Soils, will be very early, burn up the Stubble, as was taught before, that the Ashes may fall upon the Surface, to the Benefit of the Land they cover.

But here is another Husbandry to be practised.--- You must, besides your *Barley Roller*, cause another to be made, and stuck pretty full of strong, sharp Iron Pegs, that, as the Roller goes round, may pierce the loose Ground, to the Depth of two or three Inches, and scatter abroad Abundance of fresh Mould.

When



When you have gone over the Ground with this pointed Roller, sow it with *Turnep Seed*, about ten Pound upon an Acre; and, when the Seed is sown, let your smooth Roller (the heavier the better) be drawn over it. This will press the Seed into the fresh Earth, and cover it very well. These Turneps, when they come up, should be *Hoed*, if they grow too thick; a Labour which every Countryman knows the Manner of performing:—It would not be amiss to steep this Seed in *Soot* and *Urine*, as was directed about *Clover*. Thus have you two Crops in one Year; and your Ground much bettered by the Growth of the Turneps.

This last Crop, being gathered and disposed of in the Winter, you must, about the End of *February* or Beginning of *March*, have given your Ground a good, deep Plowing, and immediately sow it with the best white *Pea* you can obtain: The best way to sow them is, after the same Manner as you did your *Wheat*, upon that very Soil; and so two Bushels will be enough upon an Acre.

One Plowing, after the Pease are off, about *Michaelmas*, and another in *February* after, will certainly qualify the Land for an admirable Crop of Barley.—And, as soon as the third Harvest is over, remember the foregoing Directions, and prepare your Ground, as you did the *heavier* Soil, when you sowed *Clover*.

Now, there is a foreign Grass much properer for *light* Lands than *Clover*; 'tis generally known by the Name of *St. Foyne*; but that, which I have seen, in several Parts of *Berkshire*, *Wiltshire*, *Somersetshire*, and many other Counties, is a bastard Sort, and much inferior to the true *St. Foyne*, which may be had, very reasonably, from *Dunkirk*, or *Calais*, and is yearly imported in great Quantities, and sold in the Seed-shops at *London*, and elsewhere.

This

This Seed, being much larger than Clover, must be sowed in a much greater Quantity. Four Bushels to an Acre will be better than three, which is the least you can venture to sow.—Observe the Directions given you for Clover, as to Manuring, while the Turf is tender, and the Earth frozen; but as to the Time of letting it grow, that may, if you please, be *five* Years, for so long it will continue in its prime Perfection; and, running into a large knotty Root, does so enrich the Ground it grows on, that, after it has borne *St. Foyne* five Years, it will afford three excellent Crops of what Corn you please; and so improve itself, by alternate Burthens of *Grass*, and *Grain*, till it arrives at the utmost Perfection which Land is capable of reaching.

Nothing is so Sweet, nothing so Innocent, nothing so nourishing, as this *St. Foyne*; but, above all, it is observed to increase Milk, in Quantity, and Quality, beyond any Grass, yet known, in the whole World. And it is for this Reason, that I advise you to keep *Cows* upon it, and make your five Years Profit by a *Dairy*.

But, when I say a Dairy, imagine not that I mean such a Dairy as is commonly kept in *England*: Would you know what kind of Dairy?—I will hasten to inform you, and conclude my Essay with this useful Particular.

The worst Acre of your hundred, improved by this *Grass*, will very well maintain *four* Cows, from the first of *April* to the end of *October*, and afford, besides, a sufficient Store of *Hay*, to make good Part of their Subsistence the four Winter Months following.

You must buy then about four hundred *Milch Cows*; but take Care you chuse them with Judgement: There are bought your largest Sort of *Runts* from *Wales*, for less than fifty Shillings a Cow,

Cow, with a good Calf at her Side, which good Husbands dispose of as soon as they can.---You will observe, that they may make too good a Use of the Milk to afford the Calf his Share of it.---They should keep these Cows about twelve Months, and then, selling them for about four Pounds a piece, stock themselves with such as are *New-Milched*. They should observe this Rule every Year, and the Trouble is rewarded sufficiently, by the Advantage it will bring them; for, besides the Profit they will make by *selling* dearer than they *buy*, they avoid the Inconvenience of having any thing to do with *Bulls*, and the Consequences; so that they would preserve the Cows in their *full Milk*, and find it no uncommon Thing for one of these *Welsh* Cows to be milked twice a Day, and afford a Gallon and a half at a Meal.---Four hundred of these Cows will cost a thousand Pound, and you will perceive that, coming from a *poor* Pasture to a *rich*, they will prosper and encrease, both in Milk and Size.

In eight convenient Places about your hundred Acres, let there be built eight thatched Sheds, a little rising in the Middle, to carry off the Rain: The Height may be *ten* Foot, and the Breadth *thirty*. Each of these Sheds should be a hundred and twenty five Foot long; and, under the highest Part, directly in the Middle, you may raise a slight Partition, lathed and plaistered, which serves to support the Ridge of the Roof; while the two Sides are sustained by square wooden Posts, about eight Foot high, and placed at proper Distances.

On either Side of the Partition Wall, let there be fixed a kind of Rack, like those in Stables, which is to run the whole length of the Shed, and must be placed as high as a Cow can reach her Fodder from. The Shed must, next, be divided into *Stalls*, like those for Stone-Horses; and each  
Stall



Stall will be about five Foot broad : The length of these Stalls should be exactly fitted to that of a Cow, that a cross Bar being placed at the outward End, may keep the Beasts from running backward.--- Thus every Shed will hold fifty Cows, five and twenty on each Side of the Partition.

To every one of these Sheds you must appoint a Man, whose Business it will be to clean the Place, and carry off their Dung; as also to mow the *St. Foy* every Day, and give it to the Cows, in the Racks before mentioned. This Man, beginning at one End of his Proportion of Ground, and going gradually on to the other, the first Place will always be fit to mow again, by that Time he has gone through his whole Division:---Your Cows are thus fed at Discretion, with neither too much nor too little; They are not pestered with the scorching Heats, nor troubled with the stinging Fly; which, in open Pastures, often makes them whisk about, and trample down more Grass than they eat.

At each End of every Shed, you must build a slight Room of Brick, thirty Foot square, and ten Foot high; which is to be divided the cross way of your Shed, into two Partitions, each fifteen Foot broad, and thirty Foot long. That which joins to the Cow-house, must be paved with Tiles, and is to serve for a *Dairy*; the other must be Floored, and Windowed, and is to be a Lodging Room for Dairy Maids.

Every Shed will require five Maids, that is, to every ten Cows one Dairy Maid: Fewer might serve, but 'tis better to exceed, than fall short in this Particular. Thus, each Dairy will have two or three Maids belonging to it, whose Lodging will be the Room adjoining, and whose Care is to extend into the Shed, on both Sides the Partition,

to the five and twenty Cows which are-nearest to their Station.

All along both Sides of the Partition, at about a Foot above the Ground, let there be fixed, close to the Wall, a strong Pipe of *Lead*, a little less than an Inch Diameter, both which Pipes, being somewhat raised, exactly in the Middle of the Shed, must have a gentle, and almost invisible Descent, from that Rising, to the Dairies; through the Walls of which their netherEnds are to be brought, and there wrought into one another, that whatever descends through them, into either of the Dairies, may have issue but at one Mouth.

This Mouth of the Pipes must be made very small, and neatly fitted into the hollow End of a strong wooden Axel-Tree; so that while the Axel-Tree is turning swiftly round the Mouth of the Pipe, it may by no Means strain it by the Motion, but receive into its own Hollow the Milk, which descends through the leaden Pipes, without spilling any.

This Axel-Tree is only hollow for three Foot of its Length, and passes so far through a Wheel, or Vessel, like a Barrel, only much larger in its Circumference. The Axel-Tree, which this Vessel is to turn upon, is bored very full of round Holes, thro' which it delivers the Milk into the Vessel, as fast as it receives it from the Pipe. The Vessel must be capable of containing, at least, three times the Quantity of Milk which it is designed to receive; and there must be six Wings, or thin Pieces of Wood, glewed on to the hollow Axel Tree, whose Length and Breadth must be so contrived, as to leave a free Space of six Inches at either End of the Axel-Tree; and a Foot between their Edges, lengthways, and the smooth inside of the Vessel; in the most convenient Part of which must be contrived a Door, to open and shut down upon  
Occasion,

Occasion, as closely as if there was none. This Door will perform its Work very neatly, if you line the Inside and Edges with the same kind of Cloth which is commonly used in the pressing of Cheeses.

The other solid End of the Axel-Tree must extend itself to about five Foot longer, and the whole Length may be supported by square wooden Posts, and *turn* in their Tops, which are to be made hollow, and kept greased for that Purpose. This End of the Axel is to be fastened into a Wheel, exactly like those which are used in many Places for the roasting Meat. The Diameter of this last Wheel must be within six Inches of the Height of the Dairy; and two or three large Dogs being put into it at a Time, will *turn* it with extraordinary Swiftness. The Dogs are easily taught, and will, at last, take Delight in the Exercise: I have known a large *Buck* brought up to the Practice of this Labour; and it is wonderful to see the Force with which he runs round, an Hour or two together, and turns a Wheel of ten Foot Diameter.---But you must make your Wheel as light as it can possibly hold together.

I have but one Thing more to say, and I finish this Direction. Pretty near that Side of every Stall in your Shed to which the Maid must come to milk the Cow that belongs to it, let a Hole, as small as it will serve the Occasion, be contrived by your Plumber, in the upper Part of the Leaden Pipe, to shut and open with a little Screw, which Screw, for fear of losing it, may be fastened by a little Iron Chain to the Body of the Pipe.

I have endeavoured, in the Description of all this, to make my Meaning as plain as possible. If you do not comprehend it at first, you *will* after two or three times Reading and Considering it. I would have no Man imagine that I propose a  
 Thing



Thing too Troublesome; for one great Benefit in the Practice I am here recommending is, that it will save above half the Labour, which is, at present, absolutely necessary in every Dairy in the Kingdom.

The milking Pails, which must be used here, are very broad and shallow; in Shape not much unlike a Baker's *Sieve*. They must stand upon three Legs, of a little more than a Foot high; and from the Bottom of one Part of the Rim must come a long Tin Pipe, somewhat resembling the Neck of a *Still*, the Nose of which is to be put into one of the Holes in the Leaden Pipe; and the Pail at the same Time standing under the Cow; the Milk as fast as it descends through the *Tin* Pipe into the *Leaden* one, is thence conveyed into the Vessel, which I, just now, described in the Dairy.

Observe that, to prevent the Hairs or other Impurities from descending with the Milk, the Mouth of the Tin Pipe, which opens into the Pail, is to be covered with a straining Cloth. Thus, the Maids removing from one Stall to another, dispatch their Work neatly, and must remember to skrew up every Hole before they leave it.

Morning and Evening, before they begin to milk, they must put their *Dogs* into the great Wheel, by whose Motion the Vessel, which I call a *Churning-Mill*, being turned swiftly round, receives the Milk, yet warm, through the little Holes in the hollow Axel-Tree; and, by Means of those six Wings I mentioned, it is agitated with so great a Violence, that there is not only a much larger Quantity of Butter produced this way than by the other, but it is in every Degree so much beyond it, even in Taste and Colour, that the Difference is incredible. And what is yet a more considerable Advantage, the *Cheeses*, which you make of the  
Butter-

Butter-milk, may be reckoned among the best and richest Kinds in *England*.

When the Dairy-maids return from Milking, by that Time they have washed their Pails and taken a little Rest, they have nothing to do but open the Door of the Mill and gather the Butter, which they will find in a huge Heap, ready churned to their Hands; after which, letting out the Remainder into a Cistern, which should be near, they may proceed to make it Cheese, in the very same Manner as they would in the common Practice of their Country.---But the *Dogs* must yet a little longer continue in the Wheel.

You will wonder what Business they have in the Wheel, when the Vessel is empty?---Your Maids must have a good Quantity of *hot* Water just now in Readiness, the greater Part of which must be poured into the Vessel, and the Door made fast upon it; the *Dogs* may then be permitted to renew their Labour, for half a Quarter of an Hour, in which Time the Vessel will be compleatly washed and scalded, and then, the Water being let out, the Door must be kept open till next Milking-Time.

The Leaden Pipes are kept sweet by the same Means; for in the middle Part, where each Pipe rises highest, is to be a larger Hole than any of the other, into which a shallow, broad Funnel being put, a convenient Quantity of scalding Water must be poured in, which runs through the Pipe into the Churning-Mill, and carries away all the Reliques of the Milk as it passes along.

It would be a needless Labour should I go about to compute the particular Charges of such a *Dairy*. Every Reader will be able enough to do that for himself, and, consequently, judge of a greater or smaller in Proportion. I will only tell you what is a most certain Truth, that you will seldom have a

Cow

Cow, which shall bring you so little Profit as ten Pound a Year, and yet, at such a Computation, the yearly Income of your hundred Acres, thus employed, will amount to four thousand Pound.

And now, I hope, I have sufficiently made good my Assertion in the Title Page of this Treatise, (*viz.*) That every private Gentleman in *England* may double his Fortune in one Year's Time, by Skill and Industry in the *Art of Husbandry*; which that they may diligently and expeditiously put in Practice, both for the great and certain Profit to *Themselves* in particular, and to the Kingdom in general, is the sincere and ardent Wish of the Author, who concludes this Essay with that noted Exclamation of *Virgil*.

O Fortunatos nimium, sua si bona Norint,  
Agrícolas! quibus ipsa, procul discordibus Armis,  
Fundit humo facilem Victum justissima tellus.

F I N I S.





